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ABSTRACT

Data from the 1976 Survey of Income and Education (SIE) were used to assess the role of language factors in the occupational and income attainment process of Hispanic men and women aged 25-64 in 1976. The SIE contained a relatively complete set of basic language-use questions designed to ascertain the mother tongue of adults, the usual language spoken by an individual, and the presence of a second language spoken with regularity. Data indicated that Hispanic men who did not speak English were more concentrated in part-time employment than other men, while women who spoke English poorly were under-represented in both part-time and full-time employment. Both sexes were further penalized by their inability to speak English after they were employed. Data did not indicate that having English as mother tongue was associated with either net higher occupational or income gains. Unlike Black men, Hispanic men appeared to have occupational and income attainments consonant with their background and educational characteristics. No important differences were found in the relative attainments of Black, White, and Hispanic women with respect to earnings. Findings suggested that the major problems faced by Hispanics were low educational attainment and inability of recent immigrants to speak English well. (Author/CM)

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National Center for Education Statistics

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The Role of Language Characteristics in the Socioeconomic Attainment Process of Hispanic Origin Men and Women

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Executive Summary

This research report focusses on the role of language factors in the occupational and income attainment process of Hispanic men and women aged 25-64 in 1976. Data are obtained from the 1976 Survey of Income and Education, a sample survey which contained a large number of work force activity and language use items.

The data indicate that men of Hispanic origin who do not speak English tend to be somewhat more concentrated in part time employment than other men, while women who do not speak English well are under-represented in both part time and full time employment. In addition, both men and women tend to be further penalized by their inability to speak English once they have obtained employment. The patterns differ somewhat by sex, the men having lower than expected occupational attainment levels and lower than expected incomes as well, while the women were specifically penalized in the income attainment process. The data clearly indicate the necessity of speaking English well in the American labor market, so well in fact that the individual makes English the language which he or she usually speaks.

The data do not indicate that having English as mother tongue is associated with either net higher occupational or income gains. In only one instance do persons of English mother tongue appear to enjoy significant advantages, English monolingual women having higher than expected occupational attainments. Generally speaking, however, the men and women of Spanish mother tongue have attainment levels as high (or higher) than the

men and women of English mother tongue. Thus, within the Hispanic origin group the mother tongue of individuals does not appear to work to the disadvantage of persons from Spanish language backgrounds. Moreover, the specific ethnic origin of individuals, Chicano, Puerto Rican, Cuban, or Other Hispanic, does not appear to play an important role in the attainment process of Hispanic origin persons. Differences in the mean attainment levels of the specific ethnic groups appear to be adequately explained by differences in the characteristics of the groups, specifically educational differences.

When the Hispanic group is compared to a relatively select group of Whites, the analysis indicates that differences in the mean occupational and mean income attainments between the two groups are quite well explained by differences in the educational attainments and the number of years elapsed since the sampled groups have finished school. In short, unlike Black men, Hispanic men appear to have occupational attainments and income attainments more or less consonant with their background characteristics. No important differences were found in the relative attainments of Black, White, and Hispanic women with respect to earnings, although Black women had lower occupational status than predicted.

These findings suggest that the major problems faced by Hispanics are low educational attainment and the presence of recent immigrants who do not speak English well. The appropriate remedies appear to be bilingual educational programs for adults who do not speak English well, i.e.,

programs designed to both improve the educational attainment and the English language skills of the population which has been shown to have difficulty on the labor market. In addition, since previous research has shown that Hispanic origin young people have lower than expected educational attainments, the importance of attention to the school age population is also necessary to prevent the repetition of this cycle in the future.

Finally, the research suggests that the important aspect of sexual stratification in the labor market should not be neglected. While there are no major earnings differences between White, Black, and Hispanic origin women, each of these groups earns substantially less than the White male group. While the sources of these sexual differentials in income cannot be decomposed in this research, the differential itself should not be overlooked because of an interest in national origin differentials.

Three objectives are pursued in this report, the first of which is the assessment of the role of language characteristics in the attainment process of Hispanic men and women. It is widely believed that the inability to speak English or the inability to speak English well is related to low socioeconomic attainment in the Spanish language group. This research is designed to assess the independent effects of language characteristics on the attainment process. A second objective pursued in this report is the examination of the impact of ethnicity on the attainments of men and women in the Hispanic origin group; that is to determine whether Chicano, Puerto Rican, Cuban, or Other Hispanic ethnic origin is significantly related to occupational and income attainments. The third objective addressed in this research is the comparison of the Hispanic origin population with a White control group and with Blacks. These two groups are included in this report to permit an assessment of the extent to which the attainment process of the Hispanic population resembles that of either of these two groups. In short, we should like to be able to determine the extent to which the Spanish origin minority is being treated as a racial minority, or conversely, the extent to which the anglicisation of this group is leading to an integration of the group into the larger White majority, at least insofar as the attainment process is concerned.

The analysis itself is divided into two major parts, the first analyzing the occupational and income attainments of men, the second those of women. This division is not capricious. A variety of studies have shown that women earn considerably lower rates of income for equivalent

educational and occupational attainments. These findings are presumably explained in part by an intermittent or inconsitent work force history for many women. As a result any comparison of men and women based only on cross-sectional data and which does not include a history of work force activity is of relatively dubious validity. When using Census-type, cross-sectional data to do analyses of male income, the researcher assumes that all men work equivalent amounts of time during each year since they have left school. This assumption is much more likely to be true in the case of men than it is in the case of women.[1] Since this factor is one of the more important determinants of income, separate analyses of men and women are indicated.

A second reason which sustains the division of the presentation by sex is that there is no reason to suppose that language factors play the same role in female attainment that they do in male attainment. A number of studies have confirmed the existence of linguistic stratification in the Montreal labor market, but the data suggest the presence of asymetric stratification by sex. Men of English mother tongue are located at the top of the economic hierarchy and benefit from income premiums beyond those predicted by their background characteristics (Boulet, 1979; Vaillancourt, 1979a, 1979b; Veltman and Boulet, 1980). Lussier (1978), however, has found much less income stratification by language group among women in the Montreal work force. She finds no net income differences between English monolinguals, English bilinguals, and French monolinguals, while French bilinguals had somewhat higher net incomes (that is, after background

characteristics have been controlled). In addition, a study by Lacroix and Vaillancourt (1980) finds that among women with a university education monolingual English women have the lowest net incomes while monolingual French women have the highest. While these findings do not correspond entirely with those of Lussier, they do indicate that language factors may not act in the same way in a labor market which is both sexually and linguistically stratified.[2]

Methodology and Sampling. The data on which this report is based are those collected in the 1976 Survey of Income and Education, a 110,000 household cluster sample completed by the U.S. Bureau of the Census. Not only does the SIE contain a complete set of Current Population Survey labor force items, it contains a relatively complete set of basic language use questions, notably those designed to ascertain the mother tongue of adults, the usual language spoken by an individual, and the presence of a second language which this individual speaks with regularity. Consequently, the SIE makes it possible for the first time in the U.S. to establish a range of language shift categories for persons of non-English mother tongue, defining on the one hand persons who do not speak English at all, on the other those who no longer speak their mother tongue with regularity. Furthermore, the language characteristics of the population of English mother tongue can also be ascertained, at least to the extent of identifying practicing bilinguals.[3]

Hispanic origin is defined in this report as consisting of those persons who selected an Hispanic ethnic identifier in response to the

question asking for their ethnic background. We have eliminated from this sample, however, any such persons who claimed to belong to some other language group. The Hispanic origin population has been divided into four ethnic components, Chicanos consisting of persons who selected "Chicano," "Mexican," "Mexicano," or "Mexican-American" origin. Puerto Ricans and Cubans are those who selected each of these identifiers. The fourth group consists of persons of "Central or South American" or "Other Hispanic" ancestry, including those of mixed Hispanic origin.[4]

While the Black group sampled in the study was relatively easily identified ("Black" or "Negro" ethnic origin), the White control group is relatively heterogeneous in ethnic background. The White control group was conceived to represent those groups which are presumably relatively well integrated into the larger society, to the extent at least that on the whole their members are not victims of any obvious discrimination. The ethnic identifiers used to establish this group are German, Irish, Polish, Russian, English, Scottish, Welsh, Scandinavian, some other specific group not listed on the control card, and persons of unknown ethnic origin. Excluded from the White control group were persons of French and Italian ethnic or linguistic background since both groups were sufficiently large to permit a separate analysis. Also excluded were the Portuguese, Greek, Native American and Oriental groups since all of these groups contain important percentages of persons who have minority language backgrounds. Since the attainment levels for many of the excluded groups are below that of the retained White control group, the White control group should be

considered slightly advantaged in comparison to the non-Black population as a whole (used in Featherman and Hauser, 1976b).[5] The distribution of the ethnic origins of the White control group is presented in Appendix A.

An age parameter has also been imposed on the analysis, only persons 25-64 having been retained for analysis. The upper limit was imposed to exclude semi-retired workers. The lower limit was imposed for two reasons. First of all, a lower age limit would involve larger numbers of part time workers who were still enrolled in educational programs. It can not be assumed that their educational attainments have been completed, a situation which complicates the analysis of educational outcomes. In addition, the language practices of younger people undergo a rapid evolution between the ages of 14 and 24. While there is some continued language shift to English after the age of twenty-five, a good deal of the most rapid movement has already been completed by this age (Veltman, 1980a). This rapid anglicisation is associated with entry into the job market, emancipation from the parental home, and the setting up of one's own home, life choices which begin to be crystallized in the young adult years. Since an attempt to assess the role of language in the attainment process is predicated upon some reasonable stability of the phenomenon, an age limit lower than age twenty-five does not seem desirable.

The population estimates (weighted sample sizes) which result from the imposition of our parameters are presented in Table 1. The first column indicates the population estimates for all males aged 25-64 in 1976, including those men who were not employed during the year 1975. The weighted sample

Table 1

Estimated Numbers of Males Aged 25-64 in Selected Groups by Employment Status, United States, 1975

Weighted Samples (in thousands)	Employment Status		
	Total	Employed	Employed Full-time
"White"*	3,547	3,216	2,700
Black	4,149	3,433	2,565
Spanish, total	2,089	1,841	1,438
Chicano	1,249	1,114	868
Puerto Rican	290	231	174
Cuban	162	138	105
Other Hispanic	388	358	290

* Ten percent sample; see text for definition

Source: 1976 Survey of Income and Education

sizes represent 4.1 million Black men, 2.1 million Hispanic men, and 3.5 million White men, the latter group consisting of a ten percent random sample of all the individual cases which fit the sampling parameters. The second column of Table 1 gives the totals for men who were employed at some time in 1975, while the last column contains the estimated sample sizes for men who worked more than 1,750 hours in 1975. Representing fifty weeks of work at thirty-five hours per week, this figure has been selected as indicating the lower limit of full-time employment.

The presentation of the data themselves begins with an assessment of the gross effects of language characteristics on mean occupational and income attainments of the Spanish origin men. We shall then examine the labor force status characteristics of White, Black, and Hispanic men. We shall then present a multivariate analysis of the occupational and income attainments of each group. We conclude with a comparative analysis of the relative attainments of the Hispanic and Black groups, an analysis accomplished by the traditional procedure of rewarding the minority groups with the rates of return to characteristics secured by the majority group. Having completed the analysis of male attainment, a similar presentation will follow for the analysis of female attainment.

Language Characteristics and the Attainments of Hispanic Origin Men. We begin our analysis of the role of language in the attainment process by examining the distribution of language characteristics in the Hispanic origin population. These characteristics are defined by using several SIE language questions. Mother tongue is defined as "the language...usually

spoken in (this person's) home when (he) was a child." The response to this question defined the person's language background. Usual language is defined as "the language (this person) usually speaks." Second language is ascertained by the question, "Does (this person) often speak another language?," which if answered in the affirmative was followed by a question ascertaining the specific language often spoken. Using the two latter questions, we define as English bilinguals those persons who usually spoke English but who also reported Spanish as a frequently spoken second language. English monolinguals are defined as persons who usually spoke English but did not report that they frequently spoke a second language. Spanish bilinguals are defined as persons who responded that they usually spoke Spanish but reported that they spoke English "well" or "very well" and "often." Finally, we have defined as Spanish: poor English those persons who reported that they usually spoke Spanish and who indicated that their ability to speak English was poor, that is, they spoke English either "not very well" or "not at all."

These four categories are used to define current language use. Some of them can be further subdivided by mother tongue. English bilinguals have been divided into those who had English as mother tongue and those who had Spanish as mother tongue. This latter group has been still further subdivided into those who live in households where the principal language is English and those living in households where that language is Spanish. The principal household language was determined by the question, "What language do the people in this household usually speak here at home?" It goes without

saying that we view English bilinguals who live in households of English usual language as being more anglicized that those who live in households where Spanish was usually spoken. Mother tongue may also be used to subdivide the English monolingual population, there being both English monolinguals who come from English language backgrounds and those who no longer use their Spanish mother tongue as an active second language.[6]

The distribution of these language characteristics for the Spanish origin groups is presented in Table 2, the abbreviations used in the table corresponding to those defined in the preceding paragraphs. Examining the Hispanic origin group as a whole, Table 2 shows that just under one-half of the sampled males usually speaks Spanish, while only 21.2 percent of the male sample does not speak English well. This table also reveals that 14.5 percent of the men reported that English was their mother tongue, most of these men also reporting an English monolingual language pattern (12.6%) rather than an English bilingual language pattern (1.9%). The remaining men in the sample have Spanish for their mother tongue but now usually speak English. Most of them, however, continue to speak Spanish on a regular basis. One is obliged to conclude that there has been widespread anglicisation of the Spanish origin population, evidenced both by the presence of men with English mother tongue[7] and by the extent to which persons of Spanish mother tongue now speak English as their usual language.

An examination of the specific Hispanic ethnic groups reveals wide variation in their language characteristics. Nearly eighty percent (79.4) of the Cuban men usually speak Spanish, while only 36.1 percent of the men

Table 2

Distribution of Language Characteristics for Spanish Origin Males Aged 25-64 Years of Age, United States, 1976

Language Characteristics*		Spanish Origin Group				
Mother Tongue	Current Usage	All Spanish	Chicano	Puerto Rican	Cuban	Other Hispanic
<u>English Usual Language:</u>						
E:	English monolingual	12.6%	13.2%	6.1%	0.2%	27.5%
S:	English monolingual	6.9	7.7	7.6	2.1	5.4
E:	English bilingual	1.9	2.7	1.0	-	0.7
S:	Eng Hh, Eng bilingual	24.7	27.0	22.5	10.4	23.0
S:	Spn Hh, Eng bilingual	6.5	4.7	12.5	6.8	7.3
<u>Spanish Usual Language:</u>						
S:	Spanish bilingual	26.2	23.5	34.7	43.1	18.8
S:	Spanish, poor English	21.2	21.2	15.7	36.3	17.3
Total		100.0%	100.0%	100.0%	100.0%	100.0%

* See text for definitions

Source: 1976 Survey of Income and Education

of Other Hispanic origins usually speak Spanish. Comparable figures are 44.7 percent for Chicano men and 50.4 percent for Puerto Rican men. The proportions of men having English for their mother tongue vary conversely, the percentages being highest in the Other Hispanic group and lowest in the group of Cuban men. These patterns of language characteristics are, of course, associated with the nativity patterns of these groups. Nearly all of the Cuban men were foreign born, while eighty percent of the Puerto Rican men were not born on the mainland, this factor being associated with more retentive language characteristics (Veltman, 1980a). Nonetheless, the Chicano group is anglicized to a lesser extent than the Other Hispanic group in spite of the fact that higher percentages of Chicano men are native born (60% vs. 40%).

These language categories permit us to assess the mean attainments of men so classified. Since persons who do not speak English well may have difficulty in obtaining employment, an attainment measure of occupational or income position should take into consideration the impact of this possibility. Consequently, we have assigned a value of zero (0) for the Duncan index of men who were not employed in 1975. Similarly, for men who declared no earned income a value of zero was entered. The use of this procedure permits a global assessment of the relative position of a given group since it permits both unemployed and underemployed persons to be included in the calculations of the mean.

The Duncan socioeconomic index is a widely used measure of occupational attainment. The mean Duncan indices and mean earnings of Hispanic origin males are presented in Table 3. Examining the Duncan index patterns for

Table 3

Mean Duncan Index and Mean Employment Income by Selected Groups, Males Aged 25-64, United States, 1975

Language Characteristics		Mean Duncan Index				
Mother Tongue*	Current Usage	All Spanish	Chicano	Puerto Rican	Cuban	Other Hispanic
E:	English monolingual	33.79	32.39	23.46	53.90	37.10
S:	English monolingual	29.59	26.01	38.92	24.55	37.30
E:	English bilingual	27.76	27.51	20.43	-	38.91
S:	Eng Hh, English bilingual	32.66	31.05	33.12	47.69	35.69
S:	Spn Hh, English bilingual	33.48	30.10	23.96	59.25	43.07
S:	Spanish bilingual	24.80	22.50	21.15	34.37	29.94
S:	Spanish, poor English	14.19	13.31	9.58	19.76	15.96
Total		26.58	24.79	32.87	31.98	32.24
Language Characteristics		Mean Employment Income				
E:	English monolingual	$10,186	$ 9,830	$ 7,279	$22,094	$11,054
S:	English monolingual	11,172	10,285	11,842	8,655	15,090
E:	English bilingual	8,232	8,102	9,542	-	8,545
S:	Eng Hh, English bilingual	10,639	10,101	10,801	14,439	11,892
S:	Spn Hh, English bilingual	9,077	8,447	7,228	16,194	10,028
S:	Spanish bilingual	7,876	7,075	6,987	11,422	9,193
S:	Spanish, poor English	5,168	5,380	3,221	4,737	6,071
Total		8,581	8,199	7,699	9,587	10,162

Note: * E = English, S = Spanish, Hh = Household language

Source: 1976 Survey of Income and Education

the Hispanic origin group as a whole, the two English bilingual groups of men with Spanish mother tongue have mean attainment levels comparable to those of the English monolingual men of English language background. These groups are followed by the English monolinguals of Spanish mother tongue. Of the five groups of men who usually speak the English language, the English bilinguals of English mother tongue have the lowest mean attainment level, only three points higher than that of the Spanish bilingual men. Far behind any other group of men, the men with poor competencies in English have a mean attainment level of only 14.19 Duncan points.

Relatively similar findings are obtained for the income attainments of these language groups. The two Spanish usual language groups are found at the bottom of the income hierarchy, although it is clearly those men who do not speak English well who have far below average incomes. There are some differences in the placement of the English usual language groups which warrant comment. First of all, two groups of men with Spanish mother tongue have higher mean earnings than the English monolinguals of English mother tongue. Both groups are highly anglicized. Secondly, the English monolingual group of Spanish mother tongue enjoys the highest mean income, a change from its position in the occupational status hierarchy (where it was surpassed by three other groups).

We conclude that on the whole there is support for the proposition that there is a link between language usage and the socioeconomic attainment process. The maintenance of Spanish as one's usual language is associated with lowered attainments, particularly if the person does not speak

well. There are, however, differences in the impact of language characteristics on occupational and income attainment processes. While the five groups of men who usually speak English always enjoy mean attainment levels superior to those of the men who usually speak Spanish, it is only in the income attainment process that increased anglicisation is associated with higher mean attainments. This can be adequately shown by examining the mean incomes of the five groups of men who have Spanish mother tongue. The most anglicized group has the highest mean income, the least anglicized the lowest mean income, the intermediate groups being appropriately placed.

Taken by themselves these data correspond to the general findings for Montreal, and may be explained either by the hypothesis of greater human capital investments in English language skills (Breton, 1979) or that of informal social returns associated with integration into the dominant economic group (Veltman and Boulet, 1980). However, since the two groups of men of English mother tongue do not unambiguously secure the highest returns, neither explanation seems entirely satisfactory. It does not appear that having an English mother tongue gives men a decided economic advantage, men of Spanish mother tongue sometimes having higher mean attainments.

When the Spanish origin group is examined in terms of its component ethnic groups, men who do not speak English well have the lowest mean occupational and income attainments. After eliminating the tiniest cells in the Puerto Rican and Cuban subsamples, Spanish bilingual men generally have the next lowest attainment levels in each group. With respect only to occupational attainment, the highest attainments in each group are always

associated with one of the English usual language groups. In the case of the Chicanos and Other Hispanics it is an English bilingual group, in that of the Puerto Ricans an English monolingual group. Since there are virtually no English monolingual Cubans, this comparison cannot be made.

With respect to income attainments the most anglicized men from Spanish language backgrounds have the highest mean incomes in the Puerto Rican, Chicano, and Other Hispanic subsamples. In the Cuban group it is the English bilingual men living in Spanish language households who have the highest incomes.[8] This is the only case where the most anglicized men did not have the highest incomes.

Thus, the analysis of the attainment processes in each specific Hispanic ethnic group tends to confirm the findings for the group as a whole. Occupational attainment seems to be somewhat less tightly tied to anglicisation, whereas income attainment appears to be relatively closely related to anglicisation. It appears then that the English monolinguals of Spanish mother tongue have opted for a policy of income maximization as opposed to one oriented toward social (occupational) status.

Labor Force Status Characteristics of 25-64 Year Old Men. Overall differences in mean occupational status or income may have several different sources. In this section of the report we shall examine the role of differential access to the labor force itself. The labor force status categories which we have developed for this analysis are derived from a variety of SIE questions. We have already indicated that full time employment has been defined as having worked at least 1750 hours in 1975.

Persons who either worked full time but for less than a full year and those who worked part time during the year 1975 have been combined into a single category. For purposes of economy we shall call such persons part time workers. This group has been subdivided by the reasons which were invoked to explain why the respondents did not work full time or by the principal activity in which the person was engaged when not working full time. Five such categories were developed: involuntary, defined as being unable to work 1750 hours because of labor market factors, the individuals in question having searched for work while out of work, or having been employed part time because of shortages and slack periods or because the individual could not find full time employment; illness, defined as having been ill when not at full time employment; family responsibilities, defined as taking care of the household or family when not working full-time, or only wanting or being able to work part time;[9] educational, defined by attendance at school when not at full time employment; and other, defined as a residual category which combines persons who were in the military with those who were retired or who had some other reason for not having worked full time.

A similar set of categories was developed to classify persons who did not work at all in 1975. Involuntary is defined as being unable to find a job. The definitions of illness, education, family responsibilities, and other parallel rather precisely those defined above. The SIE also contained data for a certain number of individuals for whom no labor force information was collected. These individuals are placed in a

separate category in Table 4, which contains the distribution of these categories for each subsample retained in this study.

Considering first of all the three principal groups, Table 4 shows that 76.1 percent of the males in the White control group were employed full time in 1975, a figure nearly fifteen percent higher than that found for Black males. The figure for men of Hispanic origin is midway between that of these two groups, approximately seven in ten men having had full time jobs in 1975. Thus, in spite of the existence of language difficulties (Table 3), Hispanic origin males are more likely to be employed full time than are Black males. Black males also have the highest levels of involuntary part time employment and of involuntary absence from the labor force as well. The figures for men of Hispanic origin are intermediate in this respect, White men having the lowest incidence of involuntary unemployment or underemployment. Black men are also more frequently employed in part time work or absent entirely from the labor force due to illness, White men again having the lowest incidence of illness and Spanish origin men an intermediate incidence.

Table 4 leads us to conclude that Hispanic origin men are on the whole occupationally advantaged when compared to Black men. They are nearly as likely as White men to have secured employment in 1975, although they are somewhat more likely to have been found in part time employment than are White men. These high rates of labor force participation prevail in spite of the presence of a substantial percentage of men who do not speak English well.

Table 4

Labor Force Status of Selected Groups, Males 25-64 Years of Age, United States, 1975

Labor Force Status	Selected Groups						
	"White"	Black	All Spanish	Chicano	Puerto Rican	Cuban	Other Hispanic
Employed Full-time	76.1	61.8	69.5	69.5	59.9	64.8	74.5%
Employed less than full-time, cause:							
Involuntary	9.4	14.7	13.9	13.6	15.8	18.6	11.3%
Illness	1.7	2.7	1.9	2.0	1.9	0.3	2.3
Family responsibilities	1.0	0.8	0.8	1.0	0.3	0.3	1.4
Education	0.5	0.6	0.8	0.8	0.9	0.5	0.5
Other	2.0	1.9	2.0	2.1	0.6	0.9	2.5
Subtotal	14.6	20.7	18.7	19.5	19.5	20.6	18.0
Not in the labor force:							
Illness	4.5	9.9	6.4	5.8	12.5	7.4	3.4%
Family responsibilities	0.1	0.1	0.1	0.1	0.2	0.0	0.0
Education	0.5	0.7	0.7	0.7	0.0	1.1	1.1
Involuntary	0.9	3.0	2.2	1.5	5.4	5.0	0.8
Other	2.1	2.0	1.2	1.3	0.2	1.1	1.2
Subtotal	8.1	15.7	10.5	9.4	18.3	14.6	6.5
Not ascertained:	1.3	1.6	1.3	1.4	2.3	0.3	1.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0%

Source: 1976 Survey of Income and Education

This is not to say, however, that language characteristics have no relationship to labor force status and participation rates. While men who do not speak English well account for 21.2 percent of the entire sample, they represent only 20.4 percent of the employed work force and only 18.1 percent of the full time work force. Quite obviously, they experience some difficulty in gaining access to the work force itself but still greater difficulties in securing full time employment. These data suggest that when persons who do not speak English well are removed from the comparison with Whites, the labor force status characteristics of the Hispanic men resemble still more closely those of the White group.[10]

There is, however, some important variation in the labor force status of the specific Hispanic ethnic groups. Given the size of the Chicano group, it is not surprising that their labor force status characteristics closely resemble those of the entire Hispanic group. The Other Hispanic men have characteristics which compare favorably with those of the White group, while the Puerto Rican men have employment patterns similar to those of Black men. In fact, a higher percentage of Puerto Rican than Black males is not in the labor force, the Black males also having a higher proportion in full time employment. The employment characteristics of Cuban males also closely resemble those of Black males. We conclude that the data tend to indicate that ethnic origin is related to employment status in the Hispanic origin group, Other Hispanics having characteristics similar to those of Whites, Chicanos having less favorable employment patterns, Puerto Ricans and Cubans having a set of labor force status characteristics

as unfavorable as those of Black males.

The Relative Occupational Attainments of 25-64 Year Old Men.

While part of the lowered attainments of men who do not speak English well are explained by difficulties with obtaining access to the labor force and to full time employment, at least three other factors may also lower their attainment levels. The first is the possibility that the inability to speak English well is negatively rewarded in terms of occupational attainment and income, the second that those who do not speak English well also have other attributes which account for their lowered attainments, and the third that Hispanics in general obtain lower economic rewards for equivalent characteristics in the labor market. We shall discuss the first and second factors now, leaving the third factor for a later discussion.

One way in which the direct effects of language characteristics can be calculated is by entering these characteristics as a set of dummy variables in a multivariate regression analysis. Since we can also enter other variables, particularly educational attainment, we can disentangle to a large extent the effects of low educational attainment and lack of English language skills. We have defined educational attainment as the highest year of education completed and we have entered it as a metric variable.

A number of other variables have been introduced as control variables, although some of them are actually quite important. A work experience surrogate has been constructed which is conceptualized as

representing the number of years of work force activity of each individual. It actually represents the number of years since the respondent completed his last year of formal education.[11] Since the relationship between income and work experience is curvilinear, it has become customary to enter both the metric value and its square to approximate the curvilinear form (Featherman and Hauser, 1976a).

The remaining sets of variables are dummy variables. The first set of binary variables is for nativity and period of immigration. Persons are defined as having been born in the United States or having arrived in the United States before 1960, during the 1960's, or during the 1970's. A second set of binary variables defines region of residence in the United States, the nine regions defined by the Census being used in the analysis. These regions are retained because they permit an optimal analysis of the Spanish language group, in effect permitting us to distinguish between persons living in the Texas region from those living in California or in the New Mexico and Arizona region. We have previously demonstrated that there are important differences in the rates of anglicisation in these regions (Veltman, 1980a) and net differences in the educational attainment of children (Veltman, 1980b). Thus, it is important not to submerge these regional differences by creating a single Southwestern region.

A third set of binary variables defines the size of the place of residence. Persons may reside in the central city or suburban sections of SMSA's. They may also reside outside SMSA areas. Finally, we

have developed a dummy variable to distinguish between the core and the peripheral sectors of the economy (Beck, Horan and Tolbert, 1978).[12] Persons employed in the core sector presumably have greater opportunities for career advancement and receive rewards more commensurate with their human capital characteristics, while workers in the peripheral sector are treated more uniformly irrespective of their human capital characteristics.

When it comes to the choice of a population for which the regression equation shall be estimated, three possibilities are present. The first is to estimate the equation for the entire sample, entering as control variables some or all of the labor force status variables as a dummy variable set. The second is to estimate the equation for only those persons who were employed in 1975, entering one or more of the labor force status variables as a dummy variable set.[13] The third is to estimate the equation only for those individuals who were employed full time. We have opted for this latter procedure even though it reduces the sample sizes on which the equations are based. Nonetheless, it permits us to test the effects of language characteristics among a well-defined sample. If the language characteristic variables attain statistical independence from one another with such reduced sample sizes, we may be relatively well-assured that these effects obtain in the larger society as well.[14]

The first equation which we shall present is that for the Hispanic men. These data are presented in Table 5. The Duncan index was

Table 5

Sample Characteristics and Estimated Parameters of Occupational Attainment, Hispanic Origin Men Aged 25-64, United States, 1975

Name of Variable	Character-istics	Metric Coefficient (Standard Error)
Duncan index, mean:	31.98	
Nativity, percent:		
U.S. Born	51.46	1.36 (1.78)
FB, Before 1960	18.92	5.19 (1.76)*
FB, 1960's	18.06	1.23 (1.59)
#FB, 1970's	12.70	
Census region, percent:		
New England	1.43	3.28 (3.62)
Middle Atlantic	17.42	.71 (1.67)
East North Central	6.29	4.10 (1.82)*
West North Central	1.44	6.52 (3.45)
South Atlantic	4.86	5.55 (2.11)*
East South Central	.31	-6.86 (7.32)
West South Central	22.96	8.16 (1.20)
Mountain	10.47	3.13 (1.52)*
#Pacific	31.82	
Size of place, percent:		
Central City	37.30	.20 (1.09)
Suburban	24.80	3.65 (1.15)*
#Non-SMSA	37.90	
Education, mean:	11.23	2.86 (.14)*
Experience, mean:	23.30	.30 (.15)*
Experience^2, mean:	679.15	-.00 (.00)
Core, percent	50.06	1.66 (.83)*
Language characteristics, percent:		
#E: Eng monolingual	13.11	
S: Eng monolingual	7.32	-3.64 (1.89)*
E: Eng bilingual	1.72	-1.94 (3.31)*

Table 5
(cont)

Name of Variable	Characteristics	Metric Coefficient (Standard Error)
Language characteristics, percent:		
S: Eng Hh, Eng biling	27.06	-.67 (1.45)
S: Spn Hh, Eng biling	7.45	.57 (2.00)
S: Spanish bilingual	25.27	-3.80 (1.63)*
S: Spanish, poor Eng	18.07	-5.59 (2.04)*
Ethnicity, percent:		
Puerto Rican	12.17	1.28 (1.83)
Cuban	7.43	4.05 (2.27)
Other Hispanic	19.84	1.73 (1.37)
#Chicano	60.56	
Intercept		-10.49
R-squared		.353
F effects of language variables on r-square		4.86*
F effects of ethnic variables on r-square		1.76

Notes:
* $p < .05$; # reference characteristic; FB = foreign born, followed by period of immigration; S = Spanish, E = English, Eng = English, Hh = household language, Spn = Spanish

Source: 1976 Survey of Income and Education

coded according to the manual prepared by Featherman, Sobel, and Dickens (1975). The character (*) is used to indicate which variables have coefficients which are statistically significant at the .05 level, which in the case of the binary (dummy) variables indicates statistical difference from the reference characteristic. We have also calculated t-tests for the statistical independence of the remaining dummy variables from one another but we shall not present the results of these tests in the report itself. The data have been reweighted to approximate the number of raw cases used in the analysis.[15] Only the final step of the equation has been presented.

An examination of the characteristics of the Hispanic men reveals that more than eighty percent live in only four Census regions, the Pacific, Mountain, West South Central, and Middle Atlantic regions.[16] There are smaller concentrations in the South Atlantic and East North Central regions, the presence of Hispanics in other regions being virtually negligible. Over sixty percent live in SMSA regions, the majority in central city areas. The educational attainments of the Hispanic men are relatively low on the average (11.23 years as opposed to 13.84 years for Whites) as are their occupational attainments (31.97 as compared to 46.19 for Whites). Just over one-half of the men in the sample were born in the United States.

Examining the regression coefficients for the non-language variables, the males who immigrated to the United States before 1960 have the highest net attainments. While both U.S. born men and the

men who came to the United States during the 1960's both had somewhat higher net occupational attainments than the most recent immigrants, the differences are not statistically significant. One should probably conclude that period of immigration itself is not that important, occupational attainment being more closely correlated with other factors.[17]

Table 5 also indicates the importance of regional factors. Men living in suburban areas had significantly higher occupational attainments than men living in central city or rural regions. Those who lived in the Pacific region had significantly lower attainments than men living in most other regions where sizeable concentrations of Hispanics are found. Also revealed in Table 5 is a small work experience effect which is linear rather than curvilinear in nature, each additional year of work experience being associated with a net gain of .30 Duncan points. Having obtained a position in the core sector of the economy is associated with a gain of 1.66 Duncan points, while each additional year of education is associated with a net gain of 2.86 Duncan points.

The language variables were added to the equation after all these other variables had been entered. Thus, we can test to see whether or not the addition of the language variables significantly increases the proportion of the variance explained. The data do indicate a statistically important increase in the variance explained, which means that language variables do play a significant role in the occupational attainment process. When a t-test is applied to determine whether the coefficients differ significantly from one another, two clusters of language

coefficients are revealed. The cluster of coefficients associated with relatively higher attainments consists of the English monolingual reference group and the two English bilingual groups of Spanish mother tongue. The less successful groups are the two Spanish usual language groups and the most anglicized group of men of Spanish mother tongue, those who now have an English monolingual language pattern. The coefficients in each cluster do not differ significantly from one another but tend to differ significantly from each of the coefficients in the other cluster.[18]

This cluster pattern merits some interpretation. First of all, it is clear that the maintenance of Spanish as one's usual language is associated with net negative attainments when compared to most other groups. In addition, the inability to speak English well leads to somewhat greater negative attainments, although in all fairness it should be pointed out that the differences are relatively small, less than two points lower than that of Spanish retentive men who speak English well. Secondly, however, complete abandonment of the Spanish language by persons of Spanish mother tongue is also associated with lower net attainments than would be expected given their other characteristics.

This pattern suggests that the optimal economic position for persons of Spanish mother tongue consists in the retention of Spanish as a second language. While this pattern of language behavior may not be intergenerationally stable (Veltman, 1980a, 1981), it appears to be optimal with respect to occupational attainment. We infer that community support continues to play an important role in the occupational attainment process

of Spanish language Americans. Those who move too far in the direction of the English language group lose access to the support of the Spanish language group. That is to say, they may come to be regarded as linguistically English by members of the Spanish language group, while at the same time they may be regarded as insufficiently English by members of the English language group.

The direct consequences of maintaining the Spanish language as one's usual language are therefore somewhat more modest than the mean attainment levels presented in Table 3. While for example the gap between the Spanish men with low competency in English and the English monolinguals of English mother tongue was found to be 19.60 points, the estimate of direct effects from Table 5 is only 5.59 points. The effects of having obtained part time as opposed to full time employment being relatively minimal, the remaining fourteen points are attributable to other background characteristics. The educational differences between the men who do not speak English well and the remaining men in the sample seem adequate to account for this difference. The mean educational attainment of the former was 6.7 years, of the latter 12.1 years. If each additional year of education was rewarded at the rate estimated in the equation, this factor alone would account for more than fifteen Duncan points. Thus, the lower occupational attainments of the men who do not speak English well are principally attributable to their lower educational attainments and only secondarily to their linguistic characteristics.

These findings also suggest that Angle's conclusions (1977) from

the much smaller Current Population Survey of March, 1969 merit some updating. First of all, our data do not indicate that having an English mother tongue is an important advantage. The English bilinguals of English mother tongue have neither significantly higher nor significantly lower net attainments than do men from other groups. The English monolingual group of English mother tongue does have significantly higher attainments than three groups of men with Spanish mother tongue. However, two groups of men with English bilingual language usage and Spanish mother tongue have net attainment levels equivalent to those of the English monolingual reference group. Secondly, our data show that for persons of Spanish mother tongue, English bilingualism is a more desirable form of language shift than is the movement to English monolingualism. Thus, at least for occupational attainment, the data do not support Angle's conclusion that the most extreme form of anglicisation is associated with the highest net rewards. Thirdly, we find that maintenance of Spanish as one's usual language is associated with somewhat higher negative returns than those estimated by Angle (2.8 points). When compared to most other groups, the Spanish bilinguals have a net negative return of three to four points, the men who do not speak English well of five to six points.

The addition of the ethnic origin variables to the regression equation does not significantly increase the proportion of the variance explained, indicating that whatever ethnic differences are in fact present are adequately explained by the other variables contained in the equation.

Nonetheless, the coefficients tend to indicate that the Chicano men have slightly lower than expected occupational attainments, particularly when compared to men of Cuban origin.[19] However, given the restrained sample sizes these differences do not attain statistical significance. Thus, the observed differences in mean attainment levels (Chicano = 29.41, Puerto Rican = 32.50, Cuban = 40.66, and Other Hispanic = 36.20) cannot be attributed to origin differences.[20] As we observed previously, such differences in mean occupational attainment are closely related to differences in educational attainment, Cuban and Other Hispanic men having mean educational attainments more than two years higher than Chicano men and one-and-one-half years higher than Puerto Rican men.

Having examined the impact of language and other variables on the occupational attainments of Hispanic men, we present in Table 6 the same type of data for White men. No nativity and no language characteristic data are presented since there was virtually no distribution on these variables, nearly all men being both native born and English monolinguals.[21] An examination of the sample characteristics shows that only a small proportion of the men live in central city areas, over one-half living in non-metropolitan areas. Sizeable percentages of men live in each of the regions defined by the Bureau of the Census.

Table 6 also shows that the average White male has been in the work force for 23.27 years, a figure comparable to that of Hispanic men. However, Hispanic men are actually somewhat younger since their mean educational attainments are some 2.6 years lower than the 13.8 year mean for

Table 6

Sample Characteristics and Estimated Parameters Of Occupational Attainment, White Men Aged 25-64, United States, 1975

Name of Variable	Characteristics	Metric Coefficient (Standard Error)
Duncan index, mean:	46.19	
Census region, percent:		
New England	5.18	-.33 (1.32)
Middle Atlantic	15.42	.89 (.96)
East North Central	21.59	-1.32 (.90)
West North Central	10.07	-2.99 (1.08)*
South Atlantic	14.45	3.01 (.99)*
East South Central	6.73	2.49 (1.23)*
West South Central	9.10	-.30 (1.11)
Mountain	5.37	-1.33 (1.31)
#Pacific	12.09	
Size of place, percent:		
Central City	14.06	3.14 (.77)*
Suburban	32.45	3.59 (.59)*
#Non-SMSA	53.49	
Education, mean:	13.84	5.17 (.09)*
Experience, mean:	23.30	.36 (.09)*
Experience^2, mean:	690.73	-.00 (.00)
Core, percent:	62.10	3.40 (.52)*
Intercept		-35.51
R-squared		.393

Notes: # reference characteristic, * $p < .05$

Source: 1976 Survey of Income and Education

White men. A higher percentage of White men are also found in the core sector of the economy, 62.10 percent as opposed to only 50.06 percent for Hispanic men.

Examining briefly the regression coefficients, each additional year of educational attainment is associated with an additional 5.17 Duncan points, markedly higher than that found for the Hispanic men. The effect of placement in the core sector is also associated with higher returns to White than to Hispanic men (3.40 as opposed to 1.66 points). On the other hand, each additional year of experience is associated with approximately the same amount of net gain, the relationship being linear in form for both groups. Finally, the effects of geographic variables also differ somewhat, residence in the South and inside SMSA regions being associated with the highest occupational status.

A similar set of data is presented for Black men in Table 7. An examination of the sample characteristics reveals the expected concentrations of Black men in the Southern regions and in the two regions which include the Northern industrial states. Nearly one-half of the men live in the central city regions of SMSA's. Their mean educational attainments are two years lower than those of White men but one-half year higher than those of Hispanic men. Nonetheless, their mean occupational attainments are only 28.45 Duncan points, approximately three-and-one-half points lower than those of the Hispanic men.

An examination of the regression equation indicates that residence in the Pacific region is associated with higher occupational status than

Table 7

Sample Characteristics and Estimated Parameters of Occupational Attainment, Black Men Aged 25-64, United States, 1975

Name of Variable	Character-istics	Metric Coefficient (Standard Error)
Duncan index, mean:	28.45	
Census region, percent:		
New England	1.49	-.42 (2.58)
Middle Atlantic	16.35	-3.09 (1.30)*
East North Central	18.27	-3.44 (1.29)*
West North Central	3.53	-4.08 (1.86)*
South Atlantic	30.32	-3.62 (1.24)*
East South Central	10.28	-5.36 (1.48)*
West South Central	11.81	-5.28 (1.40)*
Mountain	.94	1.95 (3.13)
#Pacific	7.01	
Size of place, percent		
Central City	44.33	.29 (.72)
Suburban	17.43	2.67 (.90)*
#Non-SMSA	38.34	
Education, mean:	11.76	3.28 (.11)*
Experience, mean:	24.69	-.36 (.10)*
Experience^2, mean:	772.66	.01 (.00)*
Core, percent:	58.53	.91 (.58)
Intercept		-5.81
R-squared		.297

Notes: # reference characteristic, * $p < .05$

Source: 1976 Survey of Income and Education

is residence in most other regions, Southern residence being similar to residence in other areas. Residence in a suburban area is associated with higher net attainments while city residence is equivalent to rural residence in terms of its effect on occupational attainment. This finding is similar to that found for Hispanics, whereas central city Whites also enjoyed higher attainments than their rural peers.

The most interesting coefficients in this equation, however, are those associated with human capital variables. First of all, core placement is not associated with higher occupational status for Black men, a finding which differs from that obtained for White and Hispanic men. Black occupational status is relatively constant across economic sectors. Secondly, the net effect of educational attainment on occupational status is lower than that found for White men, slightly higher but comparable in size to that found for Hispanic men. Thus, each additional year of education brings higher returns to White men than to the other men. This suggests that the objective educational attainments of Black (and Hispanic) men are discounted in the occupational attainment process, the investment in additional education securing lower returns. Thirdly, the regression coefficient for experience is negative and significant, indicating that Black males who have come most recently into the job market have higher net attainments than older Black males. In addition, the square of experience is also significant, indicating a curvilinear pattern to the relationship between experience and occupational attainment. The dish-shaped curve which results suggests accelerating increases in Black

occupational status, each younger age group being still more advantaged than its predecessor. These findings, which contrast markedly with those found for White and Hispanic males, tend to confirm those reported by Featherman and Hauser (1976b)indicating that there have been important changes in the attainment process during the 1960's and 1970's. Their data suggest that additional experience among non-Blacks is associated with higher occupational status, while younger Blacks have obtained higher returns for their characteristics than have older Blacks.

Having presented these two equations for Whites and Blacks, we can procede to answer two further questions. We can first of all ascertain whether or not any additional penalties are attached to membership in the Hispanic group beyond those estimated in the equation. We can at the same time assess whether Hispanics more closely resemble Whites or Blacks in their occupational attainment process. The comparisons accomplished in this process answer the question, "What if the men of other origins were rewarded according to the attainment pattern of the White men?" That is to say, the characteristics of the Black and Hispanic origin men are presumed to remain unchanged but they are rewarded for those characteristics at the rate at which White men are rewarded (i.e., according to the regression equation estimated for the White sample). Several equations from the stepwise output of the equation presented in Table 6 serve as the basis for these comparisons. Consequently, we shall compare Black and Hispanic men to White men without distinction as to place of origin or language characteristics, although we already know that 18.1

percent of the Hispanic origin men do not speak English well and that this characteristic is associated with net negative attainments.

Three sets of such comparisons will be presented, the first estimating the expected attainments of the minority groups in terms of their educational attainments and the number of years of experience they possess. This procedure treats educational attainment as a fait accompli, this in spite of the fact that we have previously shown that Black and Hispanic young people have lower net educational attainments than other groups (Veltman, 1980b). Consequently, any discrimination which may have been practiced during the educational process is treated as exogenous, the focus of this report being on post-educational labor market attainments. In the second comparison we also control for the effects of Census region and the size of the place of residence. In the third equation we take into account the effects of differential allocation to the core or peripheral sector of the economy.[22]

Considering first of all the equations comparing expected and actual Black attainment, the first comparison predicts that Black male attainment should be 35.51 Duncan points. In fact, it is 28.45 points, only 80.1 percent of that expected. Regional distribution and employment sector only marginally affect the relationship between observed and expected attainment. These findings contrast markedly with those comparing the expected and actual attainments of Hispanic men. In all three comparisons actual attainment is only slightly below expected attainment.[23]

We conclude from this table that there are no appreciable

Table 8

Comparative Occupational Attainments of Black and Hispanic Origin Males Aged 25-64, United States, 1975

Mean Duncan Index	Equation 1*	Equation 2	Equation 3
Black Males:			
Estimated	35.51	37.00	36.87
Actual	28.45	28.45	28.45
Difference	-7.06	-8.55	-8.42
Actual/Estimated	80.1%	76.9%	77.2%
Hispanic Origin Males:			
Estimated	32.47	33.22	32.78
Actual	31.97	31.97	31.97
Difference	-.50	-1.25	-.81
Actual/Estimated	98.5%	96.2%	97.5%

* Equation 1 based on education, experience, and the square of experience; Equation 2 adds Census region and size of place; Equation 3 adds economic sector

Source: 1976 Survey of Income and Education

differences between Hispanic and White attainment levels, the Hispanic group being appropriately positioned given their background characteristics. The minor differences which remain can be easily explained by the nativity and language characteristics of the group. On the other hand, there is an important gap between the expected and observed occupational attainments of Black men. If this residual gap is taken to be evidence of discrimination, we must conclude that there is evidence of discrimination against Black men but little or no evidence of discrimination against Hispanic men. In short, Hispanics resemble Whites, not Blacks, in terms of their occupational attainments. Consequently, the effects of language group membership are not associated with any further penalties beyond those already indicated, namely problems of labor force access and the regression estimates contained in Table 5.

The Relative Income Attainments of 25-64 Year Old Men. We have already indicated in Table 3 that there may be an important difference in the role of language characteristics in the occupational attainment process and its role in the income attainment process. For the analysis of income attainment the dependent variable is defined as income from employment, whether its source was wages and salaries, self-employment, or farm income. We have retained income in whole dollar amounts for ease of the manipulation and interpretation of the data.[24] Two additional variables have been added to those used in the analysis of occupational attainment, the number of hours worked by the respondent in 1975 and the Duncan index itself.

The relevant data for the analysis of the earnings of Hispanic men are presented in Table 9. Mean earnings for 1975 were $10,902 for the sample group as a whole, although there is again some variation from group to group. Cuban men had the highest mean income, $12,852, while the comparable figures for other groups were: Other Hispanic, $12,031; Puerto Rican, $10,683; and Chicano, $10,337. These differences in mean income conform to those observed by Carliner (1976) based on data from the 1970 U.S. Census.

The examination of the regression coefficients shows that men who arrived in the 1970's have somewhat lower earnings than others, although their earnings differ statistically only from those of men who arrived in the 1960's. Thus, gross earnings differences between the nativity groups are generally explained by other factors. The regression equation also indicates that there is some regional variation in earnings, men living in the Midwestern industrial states (East North Central) having somewhat higher net earnings, those living for the most part in Texas (West South Central) having lower net earnings. Men who lived in suburban areas tended to have higher earnings than those living in central city or rural areas, although the difference is less than $1,000.

With respect to the returns to core sector employment and human capital characteristics, each additional year of work experience is associated with a $252 increase in income, subject to a declining factor of three (3) multiplied by the square of the number of years of work experience. The expected curvilinear pattern is present in Hispanic earnings.

Table 9

Sample Characteristics and Estimated Parameters of Employment Income, Hispanic Origin Men Aged 25-64, United States, 1975

Name of Variable	Character-istics	Metric Coefficient (Standard Error)
Employment Income, mean:	$10,902	
Nativity, percent:		
U.S. Born	51.46	1.003 (.555)
FB, Before 1960	18.92	.467 (.549)
FB, 1960's	18.06	1.254 (.495)*
#FB, 1970's	12.70	
Census region, percent:		
New England	1.43	.778 (1.129)
Middle Atlantic	17.42	.202 (.522)
East North Central	6.29	1.075 (.566)*
West North Central	1.44	-.675 (1.076)
South Atlantic	7.86	-.679 (.659)
East South Central	.31	-2.949 (2.282)
West South Central	22.96	-1.272 (.379)*
Mountain	10.47	-.562 (.475)
#Pacific	31.82	
Size of place, percent:		
Central City	37.30	.217 (.340)
Suburban	24.80	.994 (.359)*
#Non-SMSA	37.90	
Education, mean:	11.23	.397 (.047)*
Experience, mean:	23.30	.252 (.046)*
Experience^2, mean:	679.15	-.003 (.001)*
Core, percent:	50.06	1.782 (.262)*
Occupation, mean:	31.98	.072 (.007)*
Hours (000's), mean:	2.260	1.596 (.290)*

Table 9
(Cont)

Name of Variable	Characteristics	Metric Coefficient (Standard Error)
Language Characteristics, percent:		
#E: Eng monolingual	13.11	
S: Eng monolingual	7.32	1.780 (.589)*
E: Eng bilingual	1.72	.126 (1.031)
S: Eng Hh, Eng biling	27.06	1.236 (.452)*
S: Spn Hh, Eng biling	7.45	-.599 (.622)
S: Spanish bilingual	25.27	-.165 (.508)
S: Spanish, poor Eng	18.07	-.988 (.639)
Ethnicity, percent:		
Puerto Rican	12.17	-.742 (.572)
Cuban	7.43	.020 (.428)
Other Hispanic	19.84	.446 (.710)
#Chicano	60.56	
Intercept		-5.271
R-squared		.295
F effects of language variables on r-square		8.43*
F effects of ethnic variables on r-square		1.51

* $p < .05$; # reference characteristic; see Table 5 for symbols and definitions

Source: 1976 Survey of Income and Education

Each additional year of education is associated with a net increase of $397, each additional point of Duncan index with $72, and placement in the core is associated with a net gain of $1,782.

The addition of the language variables causes a significant increase in the proportion of the variance explained. The pattern of the coefficients varies from that observed in the occupational attainment analysis. The two groups with the highest net advantages are the English monolinguals of Spanish mother tongue and the English bilinguals of Spanish mother tongue living in English language households. These two groups of men have higher net earnings than men in most other groups, including the English monolinguals of English mother tongue.[25] On the one hand, then, these findings provide clear evidence of net income gains associated with language shift to the more anglicized language categories. On the other, they demonstrate that having English as mother tongue is not necessary to economic success in the Hispanic group. In addition, it should also be observed that the highest net earnings are those of the most anglicized Spanish mother tongue group, those men who no longer speak Spanish with regularity. The net estimated effect of belonging to this group as compared to linguistically more retentive groups is approximately $2,000 in the case of the Spanish bilinguals, $2,750 in the case of the men who do not speak English well. Obviously, these men have the lowest net attainments in the sample.[26]

In certain respects these findings support those obtained in the occupational analysis. Both analyses suggest that Spanish language origin

is not a handicap in the pursuit of economic success within the Hispanic group. Both analyses also suggest that the maintenance of Spanish as one's usual language is associated with lower net attainments, particularly if in addition one does not speak English well. Thus, both analyses indicate the economic desirability (i.e., necessity) of making English one's principal language.

In certain respects the findings do reveal differences in the role of language in the occupational and income attainment processes. This is notably true of the position of the English monolingual men of Spanish mother tongue. They were among the groups with net negative attainments in the occupational attainment process. At the same time they had the highest net income attainments. These findings suggest that English bilingualism is more likely to be rewarded in the occupational attainment process but somewhat less likely to be rewarded in the income attainment process. Even more interestingly, in the income attainment process the lower attainments of the most retentive groups do not differ statistically from those of either of the English mother tongue groups. Thus, their lower attainments appear to be adequately explained by other variables retained in the equation, notably nativity and educational attainment.[27] It appears then, that anglicisation is highly desirable for persons of Spanish mother tongue, such anglicisation leading inevitably to a succeeding generation of children of English mother tongue. However, the possession of an English mother tongue is not associated with further rewards, and appears to be still less advantageous than having been anglicized. These

findings again suggest that community support may be an important factor in promoting the economic attainments of minority language groups. When the group is still composed of large percentages of persons who speak the minority language, persons of English mother tongue in the group may not have access to the support structure of the group to the same extent, a situation which would depress their attainment levels.

One other factor worthy of note in Table 9 is the finding for ethnicity. Ethnic origin variables do not significantly increase the proportion of the variance explained, nor do any of the regression coefficients differ significantly from one another. The ethnic differences in mean earnings are adequately explained by the other variables contained in the regression equation.[28]

Before turning to the earnings analysis for the White group, we shall briefly attempt to assess the cumulative effects of language on occupational and income attainments. If we reward the net occupational attainments (regression coefficients from Table 5) at the estimated dollar rate of return to each point of Duncan indexed status ($72 from Table 9), we produce an estimate of the cumulative effects of language on income attainment via occupation. These estimates are reported in Table 10, together with the direct income effects of language characteristics estimated in the equation reported in Table 9.

These data clearly show the superior income attainments of the most anglicized group of men. Their inferior occupational attainments are completely eliminated by their superior income attainments, their

Table 10

Estimated Cumulative Dollar Effect of Language Characteristics on Income, Hispanic Origin Men Aged 25-64, United States, 1975

Language Characteristics Mother Tongue / Current Usage	Source of Differential		
	Occupation	Income	Total
S: English monolingual	$ -262	1780	$1518
E: English bilingual	140	126	266
S: Eng Hh, Eng bilingual	-48	1236	1188
S: Spn Hh, Eng bilingual	41	-599	-558
S: Spanish bilingual	-274	-165	-439
S: Spanish, poor English	-402	-988	-1390

Note: S = Spanish, E = English, Eng = English, Hh = household

Source: 1976 Survey of Income and Education
Tables 5 and 9

margin of advantage with respect to the English bilinguals of Spanish mother tongue being somewhat lower than that estimated in Table 9. Nonetheless, the data clearly reveal that for persons of Spanish mother tongue, the greater the anglicisation, the higher the income. In addition, the data in Table 10 indicate that the cumulative penalties associated with the maintenance of the Spanish language, either as the language of the household or as one's usual language, are relatively high. This is particularly true if the person in question does not speak English well. The data also reveal the intermediate position of men of English mother tongue, the English monolingual reference group having a mean income higher than those of the three most retentive but lower than those of the two most anglicized groups of men of Spanish mother tongue. This is also true for the English bilingual men of English mother tongue. These findings may reflect the greater willingness of immigrant groups to accept positions which English-speaking persons disparage. At any rate, they tend to conform to those found earlier by Featherman (1971).

The relevant data for the examination of White earnings are presented in Table 11. Mean income for White males in 1975 was $14,749, substantially higher than that of Hispanic males.[29] Net of other factors it appears that living on the West Coast is associated with higher net income, at least when compared to most other regions. Residence inside an SMSA tends to be associated with higher net earnings, both suburban and central city men having higher net attainments than rural men. In addition, suburban men have higher net attainments than do central city men.

Table 11

Sample Characteristics and Estimated Parameters of Employment Income, White Men Aged 25-64, United States, 1975

Name of Variable	Characteristics	Metric Coefficient (Standard Error)
Employment Income, mean:	$14,749	
Census region, percent:		
New England	5.18	-.517 (.493)
Middle Atlantic	15.42	.205 (.359)
East North Central	21.59	-.480 (.337)
West North Central	10.07	-.611 (.404)
South Atlantic	14.45	-.700 (.369)*
East South Central	6.73	-1.090 (.460)*
West South Central	9.10	-1.179 (.413)*
Mountain	5.37	-.523 (.489)
#Pacific	12.09	
Size of place, percent:		
Central City	14.06	.486 (.288)
Suburban	32.45	1.926 (.220)*
#Non-SMSA	53.49	
Education, mean:	13.84	.664 (.044)*
Experience, mean:	23.30	.532 (.034)*
Experience^2, mean:	690.73	-.008 (.001)*
Core, percent:	62.10	2.619 (.200)*
Occupation, mean:	46.19	.096 (.005)*
Hours (000's), mean:	2.365	1.380 (.190)*
Intercept		-10.529
R-squared		.288

Note: # = reference characteristic, * $p < .05$

Source: 1976 Survey of Income and Education

The other variables associated with income attainment also attain statistical significance in the equation for White men. Each additional year of education is associated with a net gain of $664, while each additional year of work experience is associated with a $532 net increase in income subject to a decline of $8 per year squared of experience. This represents the expected curvilinear effect of experience on income. Each additional point of Duncan index is associated with a net gain of $96, while placement in the core sector is associated with an income advantage of $2,619. The regression coefficient for each of these variables, education, work experience, Duncan index, and core placement, is larger in magnitude than that found for Hispanics. Nonetheless, the intercept is markedly lower (over $5,000),[30] indicating that each of these factors is associated with somewhat less differentiation in the economic attainment process of the Hispanic men. This finding parallels the findings obtained for the occupational attainment process.

Table 12 shows that mean Black income is only $10,435. Regional variables again play some role in the attainment process, men living in the Northern industrial states tending to have higher earnings than those living in the three Southern regions. These differences are statistically significant, as are the differences between the size of place variables. Black men living in suburban areas have higher incomes than those living in central cities, who in turn have higher incomes than those living in rural areas.

The most noticeable characteristic of the equation for Black male

Table 12

Sample Characteristics and Estimated Parameters of Employment Income, Black Men Aged 25-64, United States, 1975

Name of Variable	Characteristics	Metric Coefficient (Standard Error)
Employment Income, mean:	$10,435	
Census region, percent:		
New England	1.49	.561 (.670)
Middle Atlantic	16.35	.457 (.338)
East North Central	18.27	.956 (.335)*
West North Central	3.53	-.717 (.483)
South Atlantic	30.32	-1.273 (.322)*
East South Central	10.28	-1.675 (.385)*
West South Central	11.81	-1.710 (.362)*
Mountain	.94	-.393 (.812)
#Pacific	7.01	
Size of place, percent:		
Central City	44.33	.600 (.187)*
Suburban	17.43	1.394 (.233)*
#Non-SMSA	38.34	
Education, mean:	11.76	.392 (.031)*
Experience, mean:	24.69	.141 (.025)*
Experience^2, mean:	772.66	-.002 (.000)*
Core, percent:	58.53	1.959 (.153)*
Occupation, mean:	28.45	.077 (.004)*
Hours (000's), mean:	2.216	1.470 (.190)*
Intercept		-2.919
R-squared		.340

Note: # = reference characteristic, * = $p < .05$

Source: 1976 Survey of Income and Education

earnings is the extent to which the education, experience, Duncan index, and core placement coefficients resemble those of the Hispanic men. The only coefficients which differ somewhat are those for experience, Hispanic men gaining more than $100 per year of experience subject only to a marginally higher rate of decline. In this respect there is a convergence in the income attainment processes of the two groups, both groups of men experiencing somewhat similar treatment on the labor market irrespective of their objective characteristics than do White men. Thus, a set of unfavorable characteristics will affect more strongly the earnings of White men when compared to those with favorable characteristics in the same group than they would the earnings of Black or Hispanic men with respect to other men in their groups.

The fact that the objective (human capital) characteristics appear to be somewhat more discounted in the Black and Hispanic groups does not necessarily indicate the presence of a discriminatory reward structure. We can test for this possibility by comparing the expected and actual income attainments of these groups when their characteristics are rewarded according to the pattern obtained for Whites. The first two comparisons are based on the same variables used in the occupational comparisons (Table 8), while the third comparison adds both the Duncan index and the percentage of workers in the core sector to the income predictors. These comparisons are presented in Table 13.

Examining first of all the expected income of Black males in 1975, actual income only attained 85.2 percent of that expected on the basis of

Table 13

Comparative Employment Income of Black and Hispanic Origin Males Aged 25-64, United States, 1975

Mean Employment Income	Equation 1*	Equation 2	Equation 3
Black Males:			
Estimated	$12,246	$12,241	$11,332
Actual	10,435	10,435	10,435
Difference	-1,811	-1,806	-897
Actual/Estimated	85.2%	85.2%	92.1%
Hispanic Origin Males:			
Estimated	$11,645	$11,902	$11,480
Actual	10,902	10,902	10,902
Difference	-741	-1,000	-578
Actual/Estimated	93.6%	91.6%	95.0%

* Equation 1 based on education, experience, and the square of experience; Equation 2 adds Census region and size of place; Equation 3 also includes economic sector and the Duncan index (occupation)

Source: 1976 Survey of Income and Education

their educational attainments and their experience. The figure is the same after geographic variables are added to the comparison. However, once the proportion of men employed in the core sector and the Duncan index are also controlled, observed income attains 92.1 percent of that expected. Thus, part of the mechanism by which Blacks earn lower income is that by which they are assigned to employment sector and to occupational positions.

Relatively similar findings obtain for Hispanic origin men with one important exception, namely that the percentage of realized income is higher in all three comparisons. Thus, based on education and experience actual income is 93.6 percent of that expected. Since the Hispanic origin men are concentrated in areas where White men enjoy net advantages, this figure drops somewhat in the second comparison. After core sector and Duncan index characteristics are added, realized income is 95.0 percent of that expected. Nonetheless, the process of differential allocation of Hispanic men to less favored employment status categories is also evident, although the magnitude of the phenomenon is markedly lower.

However, these calculations ignore the effect of the lower occupational attainments of Black men, treating their actual occupational attainments as given. In fact, there is a cumulative effect to be observed, since occupational status is itself related to income. If Black men had attained occupational status consonant with their backgrounds, their expected incomes would have been higher than those estimated in Table 13. Consequently, we have re-estimated expected income for both Black and Hispanic men in accord with this hypothesis, assigning both groups their

expected occupational status from Table 8. The results of our estimates affect only the third comparison, since occupational status is not entered in the first two comparisons. Had Black males obtained occupational status consonant with their backgrounds, their estimated mean income in the third comparison would have been $813 higher. Observed income is only 85.9 percent of that anticipated under these conditions. Since Hispanic men did more or less attain anticipated occupational status, this comparison is similar to that estimated in Table 13. Anticipated Hispanic income rises by only $77 and observed income as a percentage of expected income only falls from 95.0% to 94.3%. This difference is extremely small when compared to the drop of 6.2% in the percentage of expected income actually realized by Black men, indicating the importance of the occupational attainment process in the determination of lower Black earnings.

From Table 13 we find that Black income is nonetheless 7.9 percent lower than expected. If this gap is taken to be evidence of discrimination in the earnings process, then there is some greater evidence for the existence of discrimination against Hispanics in the earnings process than there was in the occupational attainment process. The earnings gap is 5.0 percent whereas in the occupational attainment process, it was only 2.5 percent. Again, nativity and language factors can be invoked to help close the unexplained gap for the Hispanic men, whereas these factors can not be invoked to explain the remaining Black-White differentials.[31] Notwithstanding, we are obliged to conclude that among full time employees, lower Hispanic income is largely explained by lower educational attainments (and secondarily by the presence of men who did not speak English well)

rather than by treatment differences based on national origin. This holds true in spite of the fact that Hispanic men receive lower returns than White men for their human capital characteristics. While the net returns estimated in the income attainment equations for Black and Hispanic educational attainment are very similar, the comparative process accomplished in Table 13 makes it clear that Hispanic men come much closer to attaining income levels of Whites than do Black men, particularly after the effects of occupational attainment are adjusted.

Characteristics of the Women's Samples. Since the analysis of the attainment of women procedes in exactly the same manner as that accomplished for men, we present in Table 14 the weighted sample sizes of the three women's samples. The total weighted SIE samples prepared for this report represent an estimated 3.8 million White women, 5.0 million Black women, and 2.2 million Hispanic women. Given the fact that so many women were not employed full time in 1975, the samples on which our regression estimates will be based are much smaller, 1.2 million White women, 1.8 million Black women, and 610,000 Hispanic women.

The language characteristics of the Hispanic women are presented in Table 15, which shows that the Hispanic women are somewhat less anglicized than the Hispanic men. While only 21.2 percent of the men did not speak English well, the figure is 29.1 percent of the women. This indicates that there has been somewhat less language shift to English among the women, a finding which holds true for each of the Hispanic ethnic groups identified in this report.

Table 14

Estimated Numbers of Females Aged 25-64 in Selected Groups by Employment Status, United States, 1975

Weighted Samples (in thousands)	Employment Status		
	Total	Employed	Employed Full-time
"White"*	3,791	2,287	1,173
Black	5,021	3,222	1,777
Spanish, total	2,238	1,136	610
Chicano	1,227	630	301
Puerto Rican	354	117	62
Cuban	183	115	81
Other Hispanic	474	274	166

* Ten percent sample; see text for definition

Source: 1976 Survey of Income and Education

Table 15

Distribution of Language Characteristics
for Spanish Origin Females Aged 25-64,
United States, 1976

Language Characteristics*		Spanish Origin Group				
Mother Tongue	Current Usage	All Spanish	Chicano	Puerto Rican	Cuban	Other Hispanic
English Usual Language:						
Eng;	Eng monolingual	10.3%	10.2%	1.7%	0.8%	20.8%
Spn;	Eng monolingual	6.1	7.0	4.4	0.5	6.7
Eng;	Eng bilingual	2.9	3.9	1.0	0.4	2.7
Spn;	Eng HH--Eng bil	25.0	29.0	20.2	13.7	22.3
Spn;	Spn HH--Eng bil	3.4	3.3	3.0	7.7	2.4
Spanish Usual Language:						
Spn;	Spn bilingual	23.2	20.6	34.8	31.0	18.5
Spn;	poor English	29.1	26.0	34.9	45.9	26.6
Total		100.0	100.0	100.0	100.0	100.0

* See text for definitions

Source: 1976 Survey of Income and Education

Labor Force Status Characteristics of 25-64 Year Old Women. These language shift patterns have an impact on the labor force participation rates of Hispanic women. While 29.1% of the sampled Hispanic women reported that they did not speak English well, they contributed only 21.5% of the employed women and represented only 17.1% of the women employed full time. These figures contrast markedly with those of Hispanic men, where the principal effect of not speaking English well was an over-representation in part time employment. Among women not speaking English well it is associated primarily with absence from the paid labor force and subsequently with an over-representation in part time employment. Both effects are rather sizeable.[32]

This is not to say, however, that these women are prevented from working. An examination of the labor force characteristics of the sampled groups reveals that Hispanic women have somewhat less complaints than other women about the availability of suitable employment. Thus, in Table 16 the percentage of Hispanic women who are involuntarily confined to part time employment is lower than the percentages of White and Black women. This is true for each of the Hispanic ethnic groups as well with the exception of Cuban women, who were slightly more likely than White women to complain about the availability of full time employment.

These data also reveal important differences in the labor force activity of women from the different Hispanic groups. Cuban women were both most likely to be employed and most likely to be employed full time. This contrasts markedly with the employment patterns of Puerto Rican

Table 16

Labor Force Status of Selected Groups, Females
25-64 Years of Age, United States, 1975

Labor Force Status	Selected Groups						
	"White"	Black	All Spanish	Chicano	Puerto Rican	Cuban	Other Hispanic
Employed Full-time	30.9%	35.4%	27.3%	24.8%	17.4%	44.1%	34.9%
Employed less than full-time, cause:							
Involuntary	13.1	15.7	10.6	11.5	8.6	13.6	8.6
Illness	1.5	3.0	1.5	1.4	1.4	1.7	1.5
Family Responsibilities	13.1	8.4	10.2	12.3	5.8	3.0	10.9
Education	0.5	0.7	0.4	0.8	0.0	0.0	0.6
Other	1.2	0.9	0.8	0.8	0.0	0.7	1.3
Subtotal	29.5	28.8	23.5	26.8	15.9	19.0	21.9
Not in the labor force:							
Illness	3.8	11.7	6.2	4.9	12.2	8.5	4.3
Family Responsibilities	32.0	18.2	38.0	39.5	48.5	22.9	31.6
Education	0.5	0.7	1.1	0.7	1.1	2.3	1.6
Involuntary	1.2	4.0	2.5	1.9	4.3	2.9	2.5
Other	2.1	1.2	1.4	1.4	0.5	0.3	2.2
Subtotal	39.6	35.8	49.2	48.4	66.7	36.9	41.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: 1976 Survey of Income and Education

women. Only one-third of the Puerto Rican women were employed during the year, only 17.4 percent having had full time jobs. The other two Hispanic groups had employment patterns intermediate to these, the Chicano pattern tending to resemble somewhat more that of the Puerto Rican women, the Other Hispanic pattern that of the Cuban women.

Taken as a whole the Hispanic origin women had a relatively distinctive pattern of labor force activity. First of all, they had the lowest rates of full time employment. Secondly, among part time workers there appears to be somewhat less dissatisfaction with their situation. On the other hand, among women not in the labor force there is a somewhat higher percentage saying that they could not obtain employment, higher than that found for White women, lower than that found for Black women. Thirdly, a much higher percentage of Hispanic than non-Hispanic women said that their family responsibilities constituted the major reason why they did not enter the paid labor force. On the one hand, since there is a higher percentage of Hispanic women with school age children, this is partly supported by the objective circumstances. On the other, it may represent a stronger commitment to the traditional role of women, Hispanic origin women being somewhat more likely to refrain from working outside of the home when there are school age children at home.

Table 16 also shows the familiar finding that Black women have higher labor force participation rates than White women. This is true in spite of the fact that a higher percentage of Black women complain of

difficulty in obtaining both employment in general and full time employment in particular. In short, if their involuntary rates of unemployment and underemployment were the same as those of White women, their labor force participation rates would be still higher.

The Relative Occupational Attainments of 25-64 Year Old Women. Since Table 16 makes it very clear that access to the labor force for women is at least partly contingent on voluntary factors, the restriction of our analysis to women who were employed full time in 1975 is particularly appropriate. To determine the role of language and ethnic characteristics in the occupational attainment process of Spanish women, the relevant statistics are presented in Table 17. There are a number of differences between the sample characteristics of Hispanic women and those of Hispanic men. First of all, fewer of the Hispanic women who worked full time are foreign born, a finding which is related to the relative absence of women who do not speak English well. Secondly, there are proportionately fewer women than men who worked full time and lived in non-SMSA regions. Thirdly, women are far more frequently found in the peripheral rather than the core sector of the economy. Finally, there are fewer Puerto Rican and Chicano women found in full time employment. The Chicano contribution to the male work force was over sixty percent; among females less than fifty percent of the women claimed Chicano ethnic origin.

The mean occupational attainment of Hispanic women in 1975 was 35.38 Duncan points. Women of Other Hispanic ancestry had the highest mean

Table 17

Sample Characteristics and Estimated Parameters of Occupational Attainment, Hispanic Origin Women Aged 25-64, United States, 1975

Name of Variable	Characteristics	Metric Coefficient (Standard Error)
Duncan index, mean:	35.38	
Nativity, percent:		
U.S. Born	49.07	5.55 (2.72)*
FB, Before 1960	19.76	3.72 (2.75)
FB, 1960's	23.75	3.09 (2.43)
#FB, 1970's	7.42	
Census region, percent:		
New England	1.38	-4.47 (4.87)
Middle Atlantic	19.62	-.92 (2.14)
East North Central	4.52	.10 (2.77)
West North Central	1.30	-3.28 (4.89)
South Atlantic	13.48	2.32 (2.43)
East South Central	.23	7.25 (9.89)
West South Central	21.62	4.83 (1.75)*
Mountain	8.63	3.02 (2.27)
#Pacific	29.22	
Size of place, percent:		
Central city	38.82	-.55 (1.56)
Suburban	28.54	2.44 (1.64)
#Non-SMSA	32.64	
Education, mean:	11.36	2.66 (.20)*
Experience, mean:	22.36	-1.05 (.19)*
Experience^2, mean:	633.99	.02 (.00)*
Core, percent:	37.79	3.68 (1.16)*
Language characteristics, percent:		
#E: Eng monolingual	12.97	
S: Eng monolingual	6.96	-8.13 (2.61)*

Table 17
(cont)

Name of Variable	Characteristics	Metric Coefficient (Standard Error)
Language characteristics, percent:		
S: Eng bilingual	4.14	-4.66 (3.20)
S: Eng Hh, Eng biling	30.88	-4.75 (1.93)*
S: Spn Hh, Eng biling	5.02	-8.39 (3.01)*
S: Spanish bilingual	22.95	-6.52 (2.31)*
S: Spanish, poor Eng	17.08	-9.33 (2.70)*
Ethnicity, percent:		
Puerto Rican	10.15	3.04 (2.66)
Cuban	13.20	2.48 (2.59)
Other Hispanic	27.18	4.18 (1.65)*
#Chicano	49.47	
Intercept		12.73
R-squared		.430
F effects of language variables on r-square		6.16*
F effects of ethnic variables on r-square		3.82*

* p .05; # = reference characteristic

Source: 1976 Survey of Income and Education

attainments, 39.29, followed by Cuban women with a mean of 38.58. Chicano women had a mean index of 33.20 and Puerto Rican women, 31.34. These patterns differ somewhat from those found for males, but the Cuban and Other Hispanic origin groups continue to have markedly higher status for workers of both sexes.

Geographic variables seem to have somewhat lesser importance in the occupational attainment process for Hispanic women. The coefficient for only one regional variable is significant, women in the region which includes Texas having higher net attainments than women in a number of other regions. Size of place of residence does not have a significant impact on occupational attainment.

The pattern of coefficients for the nativity variables suggests that length of residence in the United States is associated with higher occupational status. Native born women have significantly higher Duncan indices than do women who are recent immigrants. Women who came to the United States before 1970 also tend to have higher status than the recent immigrants (net of language factors).[33]

The variables associated with human capital characteristics are also interesting. Each additional year of education is associated with a net gain of 2.66 Duncan points, a figure similar to that found for Hispanic men. However, placement in the core sector of the economy is associated with a net gain of 3.68 Duncan points, a figure substantially higher than that found for Hispanic men. Thus, although women are less likely to have been allocated to the core sector, those who are so allocated are

beneficiaries of important gains in status. Still more interesting are the regression coefficients of the experience variables. Each additional year of work force experience is associated with a net decline of 1.05 Duncan points, subject to a .02 point increase in status per squared year of work force experience. When calculated this reveals a curvilinear pattern which indicates a sharp increase in the occupational status of younger women. Women who have been out of school for twenty or more years tend to have net attainments about twelve to fourteen points below the most recent entrants onto the job market, there having been a relative rapid increase in occupational status over the last fifteen years or so.

The addition of the language variables to the regression equation causes a statistically significant increase in the proportion of the variance explained. The interpretation of the coefficients in this equation is very straightforward. The English monolinguals of English mother tongue have markedly higher attainments than other groups, differences which attain significance in all but one comparison.[34] Thus, both English language origin and English language monolingualism appear to confer a special status in the occupational attainment process of Hispanic women.[35]

The addition of the ethnic variables also increases the proportion of the variance explained. While it appears that Chicano women have lower than expected attainment levels, only the Other Hispanic women have significantly higher attainment levels. Since the Other Hispanic women have a geographic distribution very similar to those of Chicano women,

this finding is not likely to be due to regional differences (collinearity in the variables).

Similar data for White women are presented in Table 18. The mean occupational attainment is 47.04, slightly higher than that found for White men. The most notable distinction between the sample characteristics of White men and women is allocation to the core sector of the economy. While over 62 percent of White men were found in core employment, only 45 percent of White women had core sector employment.[36] For those women who had obtained core employment, however, the net reward was somewhat greater (5.84 Duncan points).[37]

The coefficients for the human capital type variables are also quite interesting. Each additional year of educational attainment is associated with a net gain of 4.30 Duncan points, nearly one year lower than that found for White men but substantially higher than that found for Hispanic women. The data also reveal that neither of the experience coefficients are statistically significant, indicating that women of all ages have approximately the same occupational attainments for a given set of characteristics.

These findings are relatively unique. They suggest that White women are more uniformly assigned to relatively high status occupational positions in the peripheral sector of the economy. Their human capital characteristics are somewhat less important than they are for men in the determination of occupational position. This can be clearly seen by examining the first equation in Appendix A, an equation which takes into

Table 18

Sample Characteristics and Estimated Parameters of Occupational Attainment, White Women Aged 25-64, United States, 1975

Name of Variable	Characteristics	Metric Coefficient (Standard Error)
Duncan index, mean:	47.04	
Census region, percent:		
New England	5.37	-3.35 (1.74)*
Middle Atlantic	18.03	-2.04 (1.25)
East North Central	19.64	-3.72 (1.23)*
West North Central	8.79	-5.13 (1.50)*
South Atlantic	15.83	-2.39 (1.29)
East South Central	7.44	-.78 (1.59)
West South Central	8.24	-.10 (1.53)
Mountain	4.72	1.22 (1.83)
#Pacific	11.94	
Size of place, percent:		
Central city	17.30	2.62 (.96)*
Suburban	28.67	3.64 (.80)*
#Non-SMSA	54.03	
Education, mean:	13.60	4.30 (.15)*
Experience, mean:	23.80	-.20 (.12)
Experience^2, mean:	718.16	.00 (.00)
Core, percent:	45.15	5.80 (1.23)*
Intercept		11.38
R-squared		.318

Notes: * $p < .05$, # = reference characteristic

Source: 1976 Survey of Income and Education

account only education and the two experience variables. The intercept in the equation for White women is nearly 26 Duncan points higher than that in the equation for White men, while the returns to human capital characteristics are lower, the experience variables again not attaining statistical significance. The direction of the coefficients suggests that most recent entrants to the work force have higher net status than older women.

The regional geographic effects indicate that women who live in the Pacific region have somewhat higher net attainments, while living inside an SMSA is also associated with higher net attainments. The differences between central city and suburban residence are not significant.

Comparable data for Black women are presented in Table 19. Mean occupational attainment is 35.02, considerably below that of White women but equivalent to that of Hispanic women. It is much higher than that of Black men. Differential allocation of Black women to the peripheral sector is quite evident, only 34.30% of Black women having obtained employment in the core sector. This figure is somewhat lower than that of Hispanic women, whose educational attainments are over one year below those of Black women. The return to core employment for Black women is nearly as high as that of White women and substantially higher than that found for Hispanic women.

The return to education for Black women also compares favorably with the regression coefficient obtained for White women. Both groups obtained over four points of occupational status for each additional year

Table 19
Sample Characteristics and Estimated Parameters of Occupational Attainment, Black Women Aged 25-64, United States, 1975

Name of Variable	Characteristics	Metric Coefficient (Standard Error)
Duncan index, mean:	35.02	
Census region, percent:		
New England	1.61	-5.03 (2.90)
Middle Atlantic	18.67	-1.91 (1.41)
East North Central	16.97	-5.44 (1.44)*
West North Central	3.73	-2.64 (2.10)
South Atlantic	30.22	-2.43 (1.36)
East South Central	9.49	-4.56 (1.71)*
West South Central	10.40	-2.78 (1.60)
Mountain	.89	-1.57 (3.75)
#Pacific	8.02	
Size of place, percent:		
Central city	48.47	4.06 (.84)*
Suburban	16.98	3.78 (1.07)*
#Non-SMSA	34.55	
Education, mean:	12.68	4.18 (.14)*
Experience, mean:	22.26	-.87 (.12)*
Experience^2, mean:	637.14	.02 (.00)*
Core, percent:	34.52	5.26 (.73)*
Intercept		-9.88
R-squared		.371

Notes: * $p < .05$, # = reference characteristic

Source: 1976 Survey of Income and Education

of educational attainment. These returns are substantially higher than those obtained by Hispanic women. However, the pattern of the regression coefficients for the experience variables shows great similarity in the evolution of the attainment process for Black and Hispanic women. For both groups of women there is a significant curvilinear pattern to the experience coefficients, indicating a sharp and continuous increase in the net occupational status of the younger women, each more recent group of women who have entered into the work force having higher occupational status than its predecessor. These findings suggest that young Black and Hispanic women are experiencing net benefits in occupational status from the recent evolution of the American economy.[38] The equation for Black men indicates a similar trend but one that is less marked. It appears that White women may be experiencing some similar increase in occupational attainment, but the data are not statistically significant. White men continue to accrue occupational status as they get older.[39]

The data for Black women also tend to support the proposition that living on the West Coast is associated with higher occupational status, a finding previously noted for Black men.[40] The importance of residence in an SMSA area is also clearly indicated, both central city and suburban residence being associated with net gains in occupational status of 3.5 or more Duncan points.

Having presented the equations for White and Black women, we can now procede to the comparative analysis of the relative occupational attainments of minority group women. The baseline equations which permit

us to reward Black and Hispanic women at the rate of return secured by White women are presented in Appendix B. The three sets of comparisons are presented in Table 20.

Considering first of all the expected occupational attainments of Black women, Table 20 shows that Black women had a mean attainment level only 81.0% of that expected on the basis of their education and experience. The introduction of the geographic variables changes the level of predicted attainment very little. However, the fact that such a high percentage of Black women were differentially distributed to the peripheral sector lowers their expected attainments. Observed attainment attains 85.4% of that expected, the remaining gap not being explained by the variables considered in this analysis. This gap approximates a measure of direct discrimination, differential distribution to the peripheral sector being treated as a form of indirect discrimination.

The situation of the Hispanic women is markedly different, their attainments approaching the expected attainment level to a much greater extent. Based only on education and experience Hispanic attainment is 94.0% of that expected.[41] When regional variables are added, the proportion of realized attainment drops to 89.1%, Hispanic women tending to live in regions where White women are relatively priviliged. After Hispanic women have been differentially distributed to the peripheral sector, actual attainment approximates that of White women. Thus, there is very little evidence of direct discrimination as we have defined it; there is evidence of indirect discrimination via differential distribution to the

Table 20

Comparative Occupation Attainments of Black and Hispanic Origin Females Aged 25-64, United States, 1975

Mean Duncan Index	Equation 1*	Equation 2	Equation 3
Black Females:			
Estimated	43.22	43.81	41.02
Actual	35.02	35.02	35.02
Difference	-8.20	-8.79	-6.00
Actual/Estimated	81.0%	79.9%	85.4%
Hispanic Origin Females:			
Estimated	37.65	39.69	36.66
Actual	35.38	35.38	35.38
Difference	-2.28	-4.31	-1.28
Actual/Estimated	94.0%	89.1%	96.5%

* Equation 1 based on education, experience, and the square of experience; Equation 2 adds Census region and size of place; Equation 3 adds economic sector

Source: 1976 Survey of Income and Education

peripheral sector. This is a problem which is shared by both Hispanic and Black women, although on the whole we are obliged to conclude that Hispanic women have occupational attainments much more similar to those of White women than do Black women. In addition, some of the lower attainment level of Hispanic women can probably be attributed to the effects of nativity and language characteristics. This would tend to reduce still further the gap between Hispanic and White women.

The Relative Income Attainments of 25-64 Year Old Women. Having determined the importance of language and ethnicity variables in the occupational attainments of women, we shall procede to examine the role of these variables in the income attainment process. The relevant data for the analysis of the income determination process for Hispanic women are presented in Table 21. Mean 1975 earnings from employment were $6,783, although as expected there is some variation by ethnic group (Puerto Rican = $8,046, Other Hispanic = $7,160, Cuban = $7,076, Chicano = $6,239). An examination of the regression coefficients shows, however, that these differences are adequately explained by the other variables contained in the equation.[42]

The addition of the language variables to the equation significantly increases the proportion of the variance explained. An examination of the regression coefficients shows that the inability to speak English well, already associated with less access to full time employment, is a significant disadvantage when compared to most other language characteristic groups.

Table 21

Sample Characteristics and Estimated Parameters of Employment Income, Hispanic Origin Women Aged 25-64, United States, 1975

Name of Variable	Character-istics	Metric Coefficient (Standard Error)
Employment income, mean:	$6,783	
Nativity, percent:		
U.S. Born	49.07	.432 (.464)
FB, Before 1960	19.76	.459 (.468)
FB, 1960's	23.75	.598 (.414)
#FB, 1970's	7.42	
Census region, percent:		
New England	1.38	.700 (.828)
Middle Atlantic	19.62	1.478 (.364)*
East North Central	4.52	-.039 (.471)
West North Central	1.30	.482 (.830)
South Atlantic	13.48	.355 (.413)
East South Central	.23	.745 (1.944)
West South Central	21.62	-1.142 (.299)*
Mountain	8.63	-.178 (.385)
#Pacific	29.22	
Size of place, percent:		
Central City	38.82	.837 (.266)*
Suburban	28.54	.725 (.279)*
#Non-SMSA	32.64	
Education, mean:	11.36	.172 (.038)*
Experience, mean:	22.36	.013 (.033)
Experience^2, mean:	633.99	-.000 (.001)
Core, percent:	37.79	.585 (.198)*
Occupation, mean:	35.38	.039 (.006)*
Hours (000's), mean:	2.130	1.504 (.270)*

Table 21

Name of Variable	Characteristics	Metric Coefficient (Standard Error)
Language characteristics, percent:		
#E: Eng monolingual	12.97	
S: Eng monolingual	6.96	-.053 (.446)
E: Eng bilingual	4.14	-.588 (.545)
S: Eng Hh, Eng biling	30.88	.427 (.330)
S: Spn Hh, Eng biling	5.02	.202 (.515)
S: Spanish bilingual	22.95	-.405 (.395)
S: Spanish, poor Eng	17.08	-1.066 (.462)*
Ethnicity, percent:		
Puerto Rican	10.15	.093 (.453)
Cuban	13.20	-.744 (.440)
Other Hispanic	27.18	-.457 (.282)
#Chicano	49.47	
Intercept		-.906
R-squared		.337
F effects of language variables on r-square		5.69*
F effects of ethnic variables on r-square		2.51

* $p < .05$; # = reference characteristic; see Table 5 for symbols and abbreviations

Source: 1976 Survey of Income and Education

Nonetheless, the data generally do not show any significant differences in the net income returns between any groups of women who speak English with some degree of fluency.[43] This finding contrasts markedly with that found for men, where the most anglicized men had the highest net incomes. The findings for this equation tend to support the proposition that the mother tongue of Hispanic women is relatively unimportant among women who have successfully obtained full time employment.

An examination of a number of other coefficients reveals that these women are not rewarded as anticipated. Thus, while the estimated coefficients for all groups of women are positive, none differ significantly from the reference group of most recent migrants, indicating the relative lack of importance of the nativity factor. There also appears to be relatively little regional variation in the income attainment process, Hispanic women in the Pacific and Middle Atlantic regions having somewhat higher incomes than those living in the West South Central region (most living in Texas). In addition, the expected effects of work experience are absent, the number of years which have elapsed since these women have completed their education not being significantly related to earned income.

The other variables tend to have the expected effects. Women who live in SMSA areas have higher net incomes than those who live outside of such regions. For the remaining variables the size of the coefficients are markedly smaller than those found for Hispanic males. Each additional year of education is associated with a net gain of $172, while core sector

employment is associated with an additional $585 and each additional point of Duncan index with $39 of additional income.

Generally speaking, it appears that language variables appear to have somewhat less effect on the attainment processes of Hispanic women than they do on the attainment processes of Hispanic men, at least insofar as persons who worked full time are concerned. The analysis of the data showed that women of English mother tongue enjoyed important advantages in the occupational attainment process. However, once this process was completed, the only group of women significantly disadvantaged in the income attainment process were those women who could not speak English well. Unlike their male counterparts, however, these women are already under-represented to an important extent in the full time work force.

The cumulative effects of occupational and income attainment for the language characteristic groups are presented in Table 22. The dollar value assigned to the regression coefficients for occupational attainment (Table 17) is that calculated in Table 21 ($39). This table clearly reveals the disadvantageous position of the women who do not speak English well, these women having incomes $1,430 below those of the English monolinguals of English mother tongue. This table also shows that the two groups of English bilingual women of Spanish mother tongue had incomes which were more or less equivalent to those of the English monolingual reference group. This suggests that competency in English is more important than the mere fact of having English as a first, childhood language.

The data also indicate, however, that the complete anglicisation of

Table 22

Estimated Cumulative Dollar Effect of Language Characteristics on Income, Hispanic Origin Women Aged 25-64, United States, 1975

Language Characteristics		Source of Differential		
Mother Tongue	Current Usage	Occupation	Income	Total
S: English monolingual		$ -317	-53	-370
E: English bilingual		-182	-588	-770
S: Eng Hh, Eng bilingual		-185	427	242
S: Spn Hh, Eng bilingual		-327	202	-125
S: Spanish bilingual		-254	-405	-659
S: Spanish, poor English		-364	-1066	-1430

Note: S = Spanish, E = English, Eng = English, Hh = household

Source: 1976 Survey of Income and Education
Tables 17 and 21

women of Spanish mother tongue is not associated with higher net income. The retention of Spanish as a second language for persons of English mother tongue is also negatively rewarded. These data suggest that movement to English is acceptable and unidirectional, but that movement either too slow or too rapid may be associated with net negative earnings.

Turning to the analysis of the income attainment process of White women, the relevant data are presented in Table 23. The regression coefficients indicate that women living in the Pacific and Middle Atlantic states enjoy higher net income than women living in most other regions, a pattern similar to that found for the Hispanic women. Women living in SMSA regions have higher net incomes than those living outside of such regions. The differences between central city and suburban residence are not significant.

The regression coefficients for the remaining variables are generally larger in size than those estimated for Hispanic women. Thus, each additional year of education is associated with a net income gain of $598, a figure not too much below that found for White men. Location in the core sector is associated with a net increase of $1,509, while each additional year of experience is associated with an $84 increase in income. These figures are markedly higher than those obtained for Hispanic women, although the returns to Duncan indexed status are only marginally higher ($45 versus $39).

When compared to the findings obtained for White men, only educational attainment confers nearly equivalent income rewards. Each additional

Table 23

Sample Characteristics and Estimated Parameters of Employment Income, White Women Aged 25-64, United States, 1975

Name of Variable	Characteristics	Metric Coefficient (Standard Error)
Employment income, mean:	$8,247	
Census region, percent:		
New England	5.37	-.936 (.389)
Middle Atlantic	18.03	.078 (.279)
East North Central	19.64	-.218 (.276)
West North Central	8.79	-.886 (.334)*
South Atlantic	15.83	-.532 (.288)
East South Central	7.44	-1.000 (.355)*
West South Central	8.24	-1.018 (.340)*
Mountain	4.72	-.725 (.408)
#Pacific	11.94	
Size of place, percent:		
Central city	17.30	.832 (.213)*
Suburban	28.67	1.034 (.179)*
#Non-SMSA	54.03	
Education, mean:	13.60	.598 (.039)*
Experience, mean:	23.80	.084 (.027)*
Experience^2, mean:	718.16	-.001 (.001)
Core, percent:	45.15	1.509 (.156)*
Occupation, mean:	47.04	.045 (.044)*
Hours (000's), mean:	2.128	-.000 (.000)
Intercept		-3.710
R-squared		.270

Note: * $p < .05$, # = reference characteristic

Source: 1976 Survey of Income and Education

point of Duncan index was associated with markedly higher net earnings for White men than for White women.[44] The same is true for location in the core sector of the economy. The data also reveal marked differences in the effects of experience, at least to the extent that it is possible to capture such effects in a cross-sectional sample. There is a very pronounced curvilinear relationship between work experience and income for White males, income rising by $532 per year subject to a decline of $8 per year of squared work experience. Earnings only increase by $84 per year for White females, the nonlinear effect not being significant.

The data for the analysis of the determinants of Black female income are presented in Table 24. There are many similarities in the income attainment process of Black and White females. The effects of region of residence and size of place of residence are similar. The net returns to location in the core sector are also similar. While the net return to each additional year of education is lower for Black women, the net return to each additional point of Duncan status is higher.[45]

That which is somewhat different in the Black and White female process of income attainment is the presence of a small curvilinear relationship between experience and income for Black women. Thus, each additional year of experience is associated with a net gain of $107 subject to a very small but increasing rate of decline over time. The presence of this nonlinear effect may be due to the generally higher rates of labor force employment of Black women, which is implicit evidence that more women in this group have been continuously employed since leaving school. Nonetheless,

Table 24

Sample Characteristics and Estimated Parameters of Employment Income, Black Women Aged 25-64, United States, 1975

Name of Variable	Characteristics	Metric Coefficient (Standard Error)
Employment income, mean:	$7,657	
Census region, percent:		
New England	1.61	-.252 (.500)
Middle Atlantic	18.67	.284 (.245)
East North Central	16.97	.094 (.249)
West North Central	3.73	-1.113 (.362)*
South Atlantic	30.22	-.582 (.235)*
East South Central	9.49	-1.202 (.295)*
West South Central	10.40	-1.471 (.277)*
Mountain	.89	-.107 (.646)
#Pacific	8.02	
Size of place, percent:		
Central city	48.47	.646 (.145)*
Suburban	16.98	.579 (.185)*
#Non-SMSA	34.55	
Education, mean:	12.68	.454 (.028)*
Experience, mean:	22.26	.107 (.021)*
Experience^2, mean:	637.14	-.001 (.000)*
Core, percent:	34.52	1.295 (.127)*
Occupation, mean:	35.02	.056 (.003)*
Hours (000's), mean:	2.097	.990 (.200)*
Intercept		-4.138
R-squared		.394

Note: * $p < .05$, # = reference characteristic

Source: 1976 Survey of Income and Education

the return rates for the experience variable to Black women are well below those of White men and somewhat lower than those of Black men.

Having observed the important differences in the income attainment processes of the three groups of women, we shall procede to the comparison of the attainment of the minority group women to that of White women. The relevant data are presented in Table 25. These data generally show that Black and Hispanic origin women enjoy comparable incomes to those of White women. Based on educational and experience characteristics both groups have slightly higher than expected incomes. When the geographic variables are added, both groups have income attainments which resemble very closely those of White women. Since both Black and Hispanic women are more frequently allocated to the peripheral sector of the economy, the third comparison shows that their actual incomes are much higher than expected. Nonetheless, based on these findings one would have to conclude that the evidence for income discrimination against Hispanic and Black women is very weak indeed. Even their differential distribution to the peripheral sector does not seem to have altered the general equivalence of income for women in the three groups.[46]

This conclusion is changed only marginally when Black and Hispanic origin women are assigned their estimated occupational attainment instead of their actual attainment. If these women were paid the White rate of $45 per point of Duncan index, Black women should have received an additional $268 and Hispanic women $57. In both instances the proportion of realized to expected income declines to 104%, indicating that the essential

Table 25

Comparative Employment Income of Black and Hispanic Origin Females Aged 25-64, United States, 1975

Mean Employment Income	Equation 1*	Equation 2	Equation 3
Black Females:			
Estimated	$7,485	$7,696	$7,065
Actual	7,657	7,657	7,657
Difference	+172	-39	+592
Actual/Estimated	102.3%	99.5%	108.4%
Hispanic Origin Females:			
Estimated	$6,480	$6,905	$6,455
Actual	6,783	6,783	6,783
Difference	+303	-122	+328
Actual/Estimated	104.5%	98.2%	105.1%

* Equation 1 based on education, experience, and the square of experience; Equation 2 adds Census region and size of place; Equation 3 also includes economic sector and the Duncan index (occupation)

Source: 1976 Survey of Income and Education

equivalence of female incomes remains undisturbed. Consequently, apart from potential problems of access to the full time labor force, Hispanic women appear to suffer no further penalties beyond the effects of the language characteristics estimated in the equations. While Black women report greater access difficulties and have difficulty obtaining expected occupational status, they seem to obtain income commensurate with their background characteristics.

Conclusion. In this research report we set about to answer a certain number of questions. The first question addressed the role of language characteristics in the attainment process. Very briefly, the data consistently showed that persons who did not speak English well had lower than expected attainments given their other characteristics. In addition, men who did not speak English well were somewhat under-represented among full time workers, while women with the same characteristics were significantly under-represented in both the labor market as a whole and among full time workers as well.

Apart from this very basic conclusion the data do not indicate that Hispanics of English language origin benefit in a special way from this fact. In nearly all of the regression equations one or more groups of workers of Spanish mother tongue did as well or better in the attainment process. It also appears that there are some sex differences in the role of language characteristics. While the complete anglicisation of men with Spanish mother tongue leads to negative occupational status but to extremely positive income returns, there appears to be less differentiation by

the language characteristics of women. While additional anglicisation is associated with higher incomes among men, a number of language characteristic groups have similar income levels among women.

A second question addressed in the research concerned the attainment levels of the different Hispanic origin groups. Generally speaking, ethnicity does not appear to be a very important variable in most of the equations, although the regional variables may be capturing some ethnic effects. While this does not appear to be the case in most of the equations, the data nonetheless suggest that the addition of ethnicity to the attainment estimates improves our knowledge of the attainment process very little. This is true for both sexes.

A third question addressed in the research concerned the extent to which the Hispanic group resembled either the Black or White groups. The response to this question is relatively clear: the Hispanic group generally resembles the White group in the attainment process. Among males there is some evidence of a small residual gap. On the other hand, the White sample was assembled by eliminating any groups which may have been thought to have experienced some difficulty in the labor market. Thus, the small residual gaps may be explained either by the elite nature of the White sample or a combination of language and nativity factors which are not included in the comparisons.

The analysis of these three broad questions leads us to a number of further conclusions. The tables show that the Hispanic and Black groups have lower mean educational attainments than does the White group. This

variable is exceedingly important in the occupational attainment process, while both education and occupation play important roles in the income attainment process. The comparisons made throughout this report treat educational attainment as a fait accompli. Since this is a study of persons in the labor market, this is as it should be. Nonetheless, we have previously shown that this process of lower Black and Hispanic educational attainments has not been arrested among students aged 14-17 in 1976. Improved educational attainment thus remains an urgent national priority.

Secondly, these data indicate the importance of bilingual programming for adults. The Spanish language adults who do not speak English well have three related problems. They have low educational attainments, they have access difficulties to employment, and they are penalized for their lack of competency in English. Evidently then, a program of bilingual education, perhaps with a vocational component, is imperative to address these problems. The data indicate that Hispanics who have some adequate (or better) command of English appear to have access to employment at almost the same rate as do Whites, and that a Spanish language background does not appear to be a handicap in the attainment process. The data tend to suggest that the educational component should provide for a relatively high level of competency in English.[47]

Thirdly, it appears to be too early to conclude that Hispanic origin men and women experience labor market discrimination in the United States. In fact, the data seem to indicate the contrary, this in spite of

the fact that many persons were not born in the United States and that many do not speak English well. The relatively egalitarian treatment enjoyed by Hispanics may in fact be due in part to the existence of affirmative action programs, newer immigrants experiencing a relatively more open climate than may have existed in the past. On the other hand, Hispanic Americans may simply not be viewed by prospective employers in the same way that such employers view Black Americans. Although certain aspects of the attainment processes of Hispanic Americans suggest that the evolution of their situation warrants continued attention (lower net returns to education, occupation, core employment, etc.), particularly of a longitudinal nature,[48] the data tend to indicate that Hispanic Americans probably no longer need to be included in the "protected minority" status also accorded to Blacks, Native Americans, and women. Such a change may provide the Federal government with the opportunity to direct attention to groups which experience greater post-educational, labor market problems.

Basically, these groups are two in number, Black males and all females. Black males seem to experience difficulties in obtaining socioeconomic rewards from the moment they leave school (and obviously in attaining educational rewards as well, Veltman, 1980b). Attacking this problem requires a multi-focussed program which regulates or monitors every aspect of the employment and promotional process with respect to this particular group.

The problems faced by women appear to be somewhat different. Although Black women seem to have difficulty obtaining occupational status

commensurate with their qualifications, the data tend to indicate extensive uniformity in the attainment process of women, especially with respect to income. This suggests that in the implementation of affirmative action programs the national origin of women need not (and should not) be distinguished. In other words, the data appear to indicate that a woman is a woman, not a Black, White, or Hispanic origin women.[49] Consequently, sex-stratified employment objectives should be established, any woman counting toward the achievement of target figures for women. Separate goals should be established for Black men, toward the attainment of which only Black men would be counted. If it is considered necessary, similar targets could be established for the employment of Hispanic men.

Finally, the mean salary levels reported for White, Black, and Hispanic women indicate the magnitude of the gap which separates men and women. The differences in mean income between men and women is a good approximate measure of the extent of the income gap, since on most of the characteristics used in this study there is little or no difference in the sample characteristics of the two sexes. Part of this income gap is undoubtedly due to difference in actual work force experience, a variable which is unmeasured in this study. Quite obviously, data of a longitudinal nature are necessary to estimate the extent to which the differences in experience actually close the income gap between the sexes. Most studies continue to find an important unexplained residual (Rosenfeld, forthcoming). Consequently, the income attainment of women

of all groups deserves continued priority status.

Many of the conclusions reached in this report seem somewhat surprising. Given the low socioeconomic attainments of Hispanic Americans, it seems relatively easy to have arrived at the conclusion that Hispanic Americans were being treated in a manner similar to Black Americans. It now appears that this impression is wrong. Nonetheless, although the Survey of Income and Education was designed to produce extremely large samples, the data from a single cross-sectional study need not be accepted as definitive. We have already indicated a number of limitations. Yet the data produced by the Survey of Income and Education should perhaps incite us to begin to re-conceptualize our thinking about the nature of social stratification in our society and to re-orient our policy review process to take into account the new realities being revealed.

Footnotes

[1] There is no doubt that this assumption is valid. Thus, in 1975 only 31% of the White women worked full time, while 35% of the Black women and 27% of the Hispanic women did so. Comparable figures for males (respectively) were 76%, 62%, and 70%. Nonetheless, since these figures only represent full time employment for the year 1975, the percentage of persons who have worked full time in each year since they have left school must be quite a bit lower. This suggests that the assumption that men have worked full time since having left school is weaker than anticipated. These findings suggest that complete work force histories must be established for both men and women before comparative assessments can be confidently established. Rosenfeld (forthcoming) provides such a comparative perspective but only for very young workers.

[2] Lacroix and Vaillancourt try to interpret the paradoxical findings that English monolingual men enjoy a position of privilege while English monolingual women are disadvantaged. They suggest that the English monolingual men are sheltered from facing the emerging Quebec linguistic realities by English-speaking employers; on the other hand, the allocation of women to positions which require contact with the public and the higher geographic mobility of English-speaking people work to the disadvantage of English monolingual women.

[3] In addition to the 2.1 million men of Hispanic ancestry, the SIE estimates that another 300,000 men in this age range either speak Spanish with some regularity or come from Spanish language backgrounds. Presumably these persons either issue from intermarriages contracted by members of the Hispanic group or have found it either necessary or advantageous to have learned Spanish in connection with their personal or professional development.

[4] We have not included the men defined as having Spanish language characteristics but non-Hispanic ancestry (footnote 3). The mean attainment levels for these men are higher than those reported for the White control group. When compared to the four Hispanic ancestry groups, their net attainments (measured by the regression coefficient for the group) were six Duncan points and $2,000 higher. They have been omitted from this study because the legitimacy of their membership in the Spanish language group is doubtful. This exclusion has no serious consequences for the comparative analysis, since we find so little evidence for discrimination against Hispanics anyway.

[5] We caution the reader to remember the definition of the "White" group. We are not suggesting that other groups are not "White." Without being overly awkward we should simply like to use the term "White" throughout the report without constantly calling attention to the very specific definition we have given to this term.

[6] In addition, a small group of persons remains which does not fit any of the defined categories. Some persons did not declare a mother tongue; others had trilingual language patterns. Given the extremely small sample sizes, this group was simply omitted in the analysis.

[7] Obviously, their Spanish-speaking Hispanic ancestors were themselves anglicized, giving birth to children who had English as a first language.

[8] This suggests that in a community where large proportions of persons still speak the minority language, a moderately anglicized group may come to play a brokerage role. This role necessitates both English bilingual personal usage and a strong linguistic tie through the family setting. The high mean occupational score suggests a large number of professionals are included in this language category.

[9] The SIE Manual suggests that these responses should be treated in the same manner.

[10] This is in fact the case. Once men who do not speak English well are removed, the proportion of men not in the labor force declines to 9.4%, which is only 1.3% higher than that of White men. The percentage of men with full time employment rises to 71.5%, two percent higher than that reported in Table 4. This is still 3.6% below the figure for White men.

[11] Operationally, this variable is defined as the respondent's age from which both the respondent's highest year of education and a constant (6) are subtracted. Six is subtracted on the assumption that most persons begin their formal education at six years of age.

[12] The data were classified using Tolbert's (1978) empirical classification of work force sector.

[13] For example, full time employment could be entered as one category, all the categories of part time employment as a second category, and all the categories of non-employment as the reference characteristic.

[14] The estimated effects of language tend to remain relatively constant regardless of the choice of the population, at least insofar as the labor force status variables are entered into the equations. However, the magnitude of the human capital coefficients tend to increase as the sample is successively restricted to include only employed persons and subsequently only those who were employed full time.

[15] This was done by dividing the weighted value of all males aged 14-99 by their unweighted value.

[16] The Middle Atlantic region contains New York and New Jersey and consequently an important Puerto Rican population. The three Southwest regions contain a largely Chicano population. The West South Central region includes the State of Texas, the Mountain region the States of Arizona, New Mexico, and Colorado, and the Pacific region the State of California.

[17] When nativity alone is regressed on occupation, the recent immigrants have attainments nearly seven points lower than those who arrived in the 1960's. The earlier immigrants and the native born have approximately the same high attainment levels. However, the r-square is very low, .027.

[18] When the nativity variable is removed from the equation, the coefficients in each cluster differ significantly from each coefficient in the opposite cluster. This is also true when nativity is retained in the equation but the sample consists of all employed persons.

[19] When the sample consists of all employed persons, the Cuban coefficient differs significantly from the Chicano coefficient, indicating that Cuban men have somewhat higher occupational attainments than Chicano men.

[20] Given the direction of the regression coefficients for the regions in which each group is presumed to be concentrated, it does not appear that the regional coefficients are picking up disguised ethnic effects.

[21] This is due to the fact that we selected a White control group which specifically excluded any group which may be thought to have experienced some difficulty in the attainment process. All other minority language groups were consequently excluded.

[22] These equations are reported in Appendix B.

[23] Lopez (1975) holds that while Hispanics as a whole compare favorably with Whites, native born Hispanics appear to have greater difficulty. Our data provide but very limited support for this hypothesis. Based on education and experience native born Hispanic men were expected to have occupational attainments of 35.74 points. Actually, they had a mean of 34.10, which represents 95.4% of expected attainment. This figure is only marginally lower than the 98.5% reported in Table 8.

[24] Logarithmic transformations were tested and yielded relatively similar results, the magnitudes being somewhat different.

[25] When the equation was calculated for the entire employed population, these two groups did have significantly higher earnings than men in any of the other groups.

[26] The gap is still somewhat greater when the nativity variables are omitted from the equation.

[27] In fact, when the nativity variables are omitted, men who do not speak English well are found to have significantly lower incomes than the two English mother tongue groups.

[28] The pattern of regional coefficients suggests that the ethnic groups may actually be closer together in terms of income attainments. Thus, the coefficient for the Middle Atlantic area is positive while that for Puerto Rican is negative. The inverse is true for Cubans and the South Atlantic region.

[29] The percentage of income which both Black and Hispanic groups attained when compared with Whites was higher than the percentage of occupational status attained. Labor market income is apparently connected with less subjective evaluations than is occupational status, the former resting on characteristics such as hours worked, the latter principally on educational attainment.

[30] The difference is only $4,000 when the language variables are not included.

[31] Native born Hispanic males realize a slightly higher proportion of expected income, 95.1% of that expected. Actual income was $11,630. Thus, with respect to earnings native born men do not appear to be having greater difficulty than the Hispanic group as a whole. In fact, the data suggest that there is an even greater resemblance to the earnings process of the White population.

[32] Obviously, these factors also affect the calculation of mean Duncan indices and mean income. Since so many women are at least partly absent from the work force due to voluntary factors, we have not presented the mean attainments of Hispanic females by language characteristics. These data are, however, presented in Appendix C.

[33] The coefficients for the variables "Before 1960" and "1960's" differ significantly from the attainments of the recent arrivals when the equation is calculated for all employed persons. They do not differ here because of small sample sizes.

[34] When an equation is calculated for the sample of all employed women, the results are more complex. Three groups have markedly lower net attainments, the two Spanish usual language groups and the most anglicized women of Spanish mother tongue. This latter finding parallels that found for men. As we suggested earlier, persons who usually speak English but who retain bilingualism in Spanish have quite satisfactory net occupational attainments, at least insofar as the nativity categories are included in the estimates.

[35] When the nativity variables are removed, the special status of the English monolingual women of English mother tongue is markedly enhanced. Their net attainments are from 8.5 to 13 points higher than those of all other groups of women except for the English bilinguals of English mother tongue. In turn, these latter also have higher net attainments than women from the remaining groups. It appears, then, that English mother tongue does confer large and important advantages to women in the work force, a finding which contrasts with that found for Hispanic men.

[36] When all employed persons are examined, the differences are even greater. Only 35% of the White women obtained positions in the core sector, while 60% of the White men had done so. Evidently there is a much greater differential distribution by sex among part time workers to the core and peripheral sectors, women being much more frequently allocated to positions in the peripheral sector.

[37] The advantages of core employment to men are somewhat less, 3.40 points. It would seem that this figure represents more or less a minimum. If more women were located in the core sector, their coefficient for this variable would likely be somewhat smaller, approaching that observed for men. Nonetheless, the core-peripheral distinction appears to be a valuable addition to the status research repertoire of variables.

[38] Some may allege that the observed process is best explained by federal legislation to assure equal employment opportunity. Alternatively, a secular evolutionary process may be at work.

[39] Alternatively, the benefits for being a White male are declining, younger men receiving more modest returns for their human capital formation than did older ones. Some combination of the two factors may also be present.

[40] An equation estimated for all employed women indicated the generally disadvantageous position of Black women living in the South. This factor is not apparent in this equation since the percentage of Black women living in the South declines from 54% to 50%. Evidently, Black women in the South have no difficulty obtaining part time work since only 50% of Black women live in the South. Those who obtain part time work have somewhat lower net attainments than Black women elsewhere. Subsequently, Black women have difficulty obtaining full time employment in the South. Once employed full time they apparently experience no further difficulties when compared to other Black women.

[41] However, native born Hispanic women attain 100.1% of predicted occupational attainment.

[42] The direction of the regression coefficients indicates that the occupational advantages of Cuban and Other Hispanic men have been erased in the income attainment process.

[43] In fact, in the equation estimated for all working women only one pair of coefficients differed statistically from one another. Both groups were English bilingual groups. As a result we have to conclude that belonging to one language category or another is not of great importance when the population studied consists of all working women. These findings reinforce our observation that the greatest difficulty which women who do not speak English well appear to face is access to the labor force itself. If employment is secured, it is likely to be part time employment in the peripheral sector, a pattern likely to account for their lower earnings. Among full time workers the expected pattern of lower attainments reappears.

[44] The data indicate that the Duncan index of men is a more important determinant of their income than is education (standardized regression coefficients of .28 for Duncan SEI and .24 for education), while the reverse is true for women (Duncan SEI = .21 and education = .34). This finding conforms to the previous research, cf. e.g., Featherman and Hauser, 1976.

[45] The Duncan SEI appears to be a more important determinant of the income of Black women (standardized regression coefficient = .32) than of the income of White women (.21). Thus, the lower occupational attainments of Black women assume somewhat greater importance.

[46] Based on education and experience, the actual earnings of native born Hispanic women are slightly higher than expected earnings (100.6%).

[47] A program designed to reach new immigrants on their arrival in the United States would seem ideal to achieve these objectives.

[48] High School and Beyond, a new national longitudinal study which includes an oversampling of Hispanics, should prove ideal to permit this type of longitudinal analysis. The study is funded by the National Center for Education Statistics.

[49] An analysis of the attainments of relatively young women who have been employed consistently since leaving school suggests that there may be greater differentiation than cross-sectional analysis indicates. White women appear to have somewhat higher attainments than do Black women under these circumstances (Rosenfeld, forthcoming). If this pattern can be substantiated over time, separate targets may need to be established for Black and non-Black women.

Appendix A: Ethnic Origin of the White Samples

Ethnic Origin	Weighted Sample Size		Percentage	
	Males	Females	Males	Females
German	467,601	431,034	13.2	11.4
Irish	241,915	287,588	6.8	7.6
Polish	124,135	108,126	3.5	2.9
Russian	44,757	48,444	1.3	1.3
English	284,646	307,002	8.0	8.1
Scottish	60,206	42,039	1.7	1.1
Welsh	18,780	7,040	.5	.2
Scandinavian	100,256	110,770	2.8	2.9
Other	2,059,143	2,309,031	58.1	60.9
Don't know	134,540	122,953	3.8	3.2
Not available	11,056	16,526	.3	.4
Totals	3,546,985	3,790,501	100.0	100.0

Source: 1976 Survey of Income and Education

Appendix B

Regression of Occupational Attainment on Selected Variables, Full-time Employed White Male Sample, United States, 1975

Variables	Equation 1	Equation 2	Equation 3
Education	5.263 (.093)	5.154 (.095)	5.170 (.094)
Experience	.381 (.090)	.386 (.090)	.355 (.090)
Experience ^{2}	-.003 (.002)	-.003 (.002)	-.003 (.002)
New England		-.253 (1.324)	-.328 (1.320)
Middle Atlantic		.869 (.966)	.888 (.962)
East North Central		-1.093 (.906)	-1.322 (.903)
West North Central		-3.254 (1.083)	-2.991 (1.079)
South Atlantic		2.976 (.990)	3.011 (.986)
East South Central		2.410 (1.235)	2.486 (1.231)
West South Central		-.182 (1.110)	-.295 (1.106)
Mountain		-1.544 (1.324)	-1.330 (1.310)
Central City		3.179 (.772)	3.139 (.769)
Suburban		3.854 (.586)	3.590 (.585)
Core Sector			3.401 (.520)
Constant	-33.362	-33.527	-35.514
R-squared	.378	.388	.393

(standard errors in parentheses)

Source: 1976 Survey of Income and Education

Appendix B

Regression of Employment Income on Selected Variables, White Male Sample Employed Full-time, United States, 1975

Variables	Equation 1	Equation 2	Equation 3
Education	1.231 (.037)	1.157 (.037)	.670 (.044)
Experience	.620 (.036)	.608 (.035)	.550 (.034)
Experience ^{2}	-.010 (.001)	-.010 (.001)	-.009 (.001)
New England		-.509 (.519)	-.535 (.495)
Middle Atlantic		.260 (.011)	.189 (.361)
East North Central		-.394 (.355)	-.443 (.339)
West North Central		-.949 (.424)	-.457 (.405)
South Atlantic		-.449 (.388)	-.713 (.370)
East South Central		-1.003 (.484)	-1.184 (.462)
West South Central		-1.006 (.435)	-1.065 (.415)
Mountain		-.711 (.515)	-.417 (.491)
Central City		.680 (.302)	.346 (.289)
Suburban		2.344 (.230)	1.794 (.220)
Core Sector			2.298 (.196)
Duncan Index			.096 (.005)
Constant	-10.005	-9.201	-7.309
R-squared	.190	.211	.281

(Standard errors in parentheses)

Source: 1976 Survey of Income and Education

Appendix B

Regression of Occupational Attainment on Selected Variables, Full-time Employed White Female Sample, United States, 1975

Variables	Equation 1	Equation 2	Equation 3
Education	4.210 (.153)	4.097 (.154)	4.296 (.154)
Experience	-.204 (.121)	-.191 (.121)	-.195 (.119)
Experience ^{2}	.003 (.002)	.003 (.002)	.004 (.002)
New England		-3.073 (1.767)	-3.348 (1.743)
Middle Atlantic		-2.191 (1.268)	-2.044 (1.251)
East North Central		-3.500 (1.251)	-3.718 (1.235)
West North Central		-5.576 (1.517)	-5.128 (1.497)
South Atlantic		-2.720 (1.308)	-2.395 (1.290)
East South Central		-.823 (1.613)	-.780 (1.591)
West South Central		-.595 (1.547)	-.103 (1.527)
Mountain		1.060 (1.855)	1.224 (1.829)
Central City		3.152 (.967)	2.621 (.956)
Suburban		4.281 (.806)	3.644 (.799)
Core Sector			5.805 (.686)
Constant	-7.488	-5.715	-11.382
R-squared	.282	.299	.318

(standard errors in parentheses)

Source: 1976 Survey of Income and Education

Appendix B

Regression of Employment Income on Selected Variables, White Female Sample Employed Full-time, United States, 1975

Variables	Equation 1	Equation 2	Equation 3
Education	.770 (.036)	.728 (.035)	.597 (.039)
Experience	.061 (.028)	.076 (.028)	.083 (.027)
Experience^2	-.001 (.001)	-.001 (.001)	-.001 (.001)
New England		-.987 (.406)	-.921 (.388)
Middle Atlantic		-.041 (.291)	.095 (.279)
East North Central		-.312 (.287)	-.212 (.275)
West North Central		-1.249 (.348)	-.882 (.334)
South Atlantic		-.736 (.300)	-.529 (.288)
East South Central		-1.037 (.370)	-.989 (.354)
West South Central		-1.164 (.355)	-1.008 (.340)
Mountain		-.729 (.426)	-.734 (.407)
Central City		1.115 (.222)	.835 (.213)
Suburban		1.392 (.185)	1.033 (.179)
Core			1.522 (.155)
Duncan Index			.045 (.004)
Constant	-3.289	-2.869	-4.100
R-squared	.163	.201	.270

(Standard errors in parentheses)

Source: 1976 Survey of Income and Education

Appendix C

Mean Duncan Index and Mean Employment Income by Selected Groups, Females Aged 25-64, United States, 1975

Language Characteristics*		Mean Duncan Index				
Mother Tongue	Current Usage	All Spanish	Chicano	Puerto Rican	Cuban	Other Hispanic
English;	Eng monolingual	26.32	21.27	11.90	21.94	31.55
Spanish;	Eng monolingual	19.19	17.90	21.70	12.44	19.94
English;	Eng bilingual	24.68	23.06	16.94	43.90	31.02
Spanish;	Eng HH--Eng bil	23.45	21.70	17.88	35.49	26.62
Spanish;	Spn HH--Eng bil	23.80	25.13	2.29	20.43	38.34
Spanish;	Spanish bilingual	16.92	13.61	10.30	30.21	16.20
Spanish;	poor English	7.20	5.24	3.56	11.89	8.76
Total		16.32	15.61	9.83	21.67	20.93
Language Characteristics						
English;	Eng monolingual	$ 3,425	2,718	1,244	14,357	4,076
Spanish;	Eng monolingual	2,778	2,698	2,525	4,685	3,065
English;	Eng bilingual	2,636	2,520	1,356	4,800	3,282
Spanish;	Eng HH--Eng bil	3,375	3,086	3,404	5,217	3,891
Spanish;	Spn HH--Eng bil	3,339	3,376	316	3,971	5,252
Spanish;	Spanish bilingual	2,281	1,670	2,285	4,716	2,467
Spanish;	poor English	1,248	912	802	1,908	2,100
Total		2,438	2,152	1,918	3,520	3,150

Note: * See text for definitions

Source: 1976 Survey of Income and Education

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